=> d l1; d his; log y L1 HAS NO ANSWERS L1 STR

Structure attributes must be viewed using STN Express query preparation.

(FILE 'HOME' ENTERED AT 19:10:52 ON 23 JUN 2004)

FILE 'REGISTRY' ENTERED AT 19:11:20 ON 23 JUN 2004

L1 STRUCTURE UPLOADED

L2 17 S L1

L3 336 S L1 FUL

FILE 'STNGUIDE' ENTERED AT 19:12:25 ON 23 JUN 2004

FILE 'CAPLUS' ENTERED AT 19:13:11 ON 23 JUN 2004 L4 47 S L3

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 224.43	SESSION 380.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -32.57	SESSION -32.57

STN INTERNATIONAL LOGOFF AT 19:14:37 ON 23 JUN 2004

searly notes

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ANSWER 1 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
AN
     2003:855766 CAPLUS Full-text
DN
     139:345913
     Identification of tumor necrosis factor \alpha (TNF-\alpha) modulator
ΤI
     compounds, and use for treatment of TNF-mediated diseases
IN
     Miller, Karen; Diu-Hercend, Anita; Hercend, Thierry; Lang, Paul; Weber,
     Peter; Golec, Julian; Mortimore, Michael
     Vertex Pharmaceuticals Incorporated, USA
PA
     PCT Int. Appl., 268 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
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     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
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             MD, RU, TJ, TM
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             GW, ML, MR, NE, SN, TD, TG
                                           US 2003-419327
                                                             20030417
     US 2004048797
                            20040311
                       A1
PRAI US 2002-374434P
                       Ρ
                            20020419
     The invention discloses methods for identifying compds. useful for
AΒ
     regulating TNF-\alpha levels and/or activity. The invention also discloses
     methods for decreasing TNF-\alpha levels and/or activity. Compds. and compns.
     of the invention are useful for treating TNF-mediated diseases. The
     invention further discloses kits comprising the compds. and compns.
     herein and a tool for measuring TNF-\alpha activity and/or levels.
     Preparation of selected compds., e.g. [3S/R,(2S)]-5-fluoro-4-oxo-3-[(1-
      (phenothiazine-10-carbonyl)piperidine-2-carbonyl)amino]pentanoic acid,
     is described.
     363154-80-7 363154-82-9 363154-84-1
IT
     363154-88-5 363154-90-9 363154-92-1
     363154-94-3 363154-96-5 363154-98-7
     363155-00-4 363155-02-6 363155-04-8
     363155-06-0 363155-10-6 363155-12-8
     363155-14-0 363155-16-2 363155-18-4
     363155-20-8 363155-22-0 363155-26-4
     363155-30-0 363155-32-2 363155-34-4
     363155-36-6 363155-38-8 582317-60-0
     582317-61-1 582317-62-2
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (TNF-\alpha modulator compound identification methods, and use for
        treatment of TNF-mediated diseases)
     363154-80-7 CAPLUS
RN
     9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-
CN
     oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 363154-82-9 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

```
RN 363154-84-1 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 3,6-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)
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RN 363154-88-5 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2,3-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-90-9 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-(trifluoromethyl)-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester
(9CI) (CA INDEX NAME)

RN 363154-92-1 CAPLUS

3-

CN 9H-Carbazole-9-carboxylic acid, 2-methyl-, (1S)-1-[[[1-(carboxymethyl)-

fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

RN 363154-94-3 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-96-5 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

RN 363154-98-7 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-

fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-00-4 CAPLUS

N 1H-Indole-1-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-02-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-04-8 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-06-0 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

RN 363155-10-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3,4-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-12-8 CAPLUS

CN 5(6H)-Phenanthridinecarboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-14-0 CAPLUS

CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-16-2 CAPLUS

CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, 10,11-dihydro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-18-4 CAPLUS

3-

CN 1H-Indole-1-carboxylic acid, 2,3-dihydro-, (1S)-1-[[[1-(carboxymethyl)-

fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-20-8 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(diethylamino)-2-oxoethyl]3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CAINDEX
NAME)

Absolute stereochemistry.

RN 363155-22-0 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(ethylamino)-2-oxoethyl]-3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-26-4 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-30-0 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(cyclohexyloxy)-2-oxoethyl]-

3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 363155-32-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-2-oxo-1-(2-oxo-2-propoxyethyl)propyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX

NAME)

RN 363155-34-4 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-[2-(1-methylethoxy)-2-oxoethyl]-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-36-6 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-(2-methoxy-2-oxoethyl)-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

CN Cholest-5-en-3-ol (3β) -, 3-[[(2S)-2-[(9H-carbazol-9-ylcarbonyl)oxy]-3-methyl-1-oxobutyl]amino]-5-fluoro-4-oxopentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 582317-60-0 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3,7-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 582317-61-1 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-2-oxo-1-[2-oxo-2-(1-piperazinyl)ethyl]propyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 582317-62-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(2-amino-2-oxoethyl)-3-

fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

```
ANSWER 2 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
AN
     2003:656594 CAPLUS Full-text
     139:191460
DN
TI
     Phospholipids as caspase inhibitor prodrugs
IN
     Mortimore, Michael; Golec, Julian M. C.
     Vertex Pharmaceuticals Incorporated, USA
PA
     PCT Int. Appl., 256 pp.
SO
     CODEN: PIXXD2
DT \cdot
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
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             ML, MR, NE, SN, TD, TG
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                                           US 2003-366192
                                                             20030211
PRAI US 2002-355889P
                            20020211
                       P
     MARPAT 139:191460
OS
AB
     The invention relates to compds. which are prodrugs of caspase
     inhibitors and pharmaceutically acceptable salts thereof. The invention
     further relates to the release of caspase inhibitors from these compds.
     through selective bond cleavage. The invention further relates to
     pharmaceutical compns. comprising these compds., which are particularly
     well-suited for treatment of caspase-mediated diseases, including
     inflammatory and degenerative diseases. The invention further relates
     to methods for preparing compds. of this invention.
IT
     363154-80-7
     RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic
use);
     BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
        (phospholipids as caspase inhibitor prodrugs)
RN
     363154-80-7 CAPLUS
CN
     9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-
     oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)
Absolute stereochemistry.
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363154-82-9 363154-84-1 363154-88-5
ΙT
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     363154-96-5 363154-98-7 363155-00-4
     363155-02-6 363155-04-8 363155-06-0
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     363155-22-0 363155-26-4 363155-30-0
     363155-32-2 363155-34-4 363155-36-6
     363155-38-8 582317-60-0 582317-61-1
     582317-62-2
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (phospholipids as caspase inhibitor prodrugs)
RN
     363154-82-9 CAPLUS
     9H-Carbazole-9-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)-
CN
3-
     fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX
     NAME)
```

Absolute stereochemistry.

```
RN 363154-84-1 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 3,6-dichloro-, (1S)-1-[[[1-(carboxymethyl)-
3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX
NAME)
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RN 363154-88-5 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2,3-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 363154-90-9 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-(trifluoromethyl)-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-92-1 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-methyl-, (1S)-1-[[[1-(carboxymethyl)-3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363154-94-3 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-96-5 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-98-7 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-

3-

fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)
Absolute stereochemistry.

RN 363155-00-4 CAPLUS

CN 1H-Indole-1-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-02-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-04-8 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-06-0 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropylester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-10-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3,4-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

RN 363155-12-8 CAPLUS

CN 5(6H)-Phenanthridinecarboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-14-0 CAPLUS

CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-16-2 CAPLUS
CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, 10,11-dihydro-,
(1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-18-4 CAPLUS
CN 1H-Indole-1-carboxylic acid, 2,3-dihydro-, (1S)-1-[[[1-(carboxymethyl)3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-20-8 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(diethylamino)-2-oxoethyl]3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX
NAME)

RN 363155-22-0 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(ethylamino)-2-oxoethyl]-

3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-26-4 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-30-0 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(cyclohexyloxy)-2-oxoethyl]- 3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 363155-32-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-2-oxo-1-(2-oxo-2-propoxyethyl)propyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 363155-34-4 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-[2-(1-methylethoxy)-2-oxoethyl]-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-36-6 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-(2-methoxy-2-oxoethyl)-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-38-8 CAPLUS

CN Cholest-5-en-3-ol (3β) -, 3-[[(2S)-2-[(9H-carbazol-9-ylcarbonyl)oxy]-3-methyl-1-oxobutyl]amino]-5-fluoro-4-oxopentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

__(CH2)3__CHMe2

RN 582317-60-0 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3,7-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropylester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 582317-61-1 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-2-oxo-1-[2-oxo-2-(1-piperazinyl)ethyl]propyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 582317-62-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(2-amino-2-oxoethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
AN
     2003:417609 CAPLUS Full-text
     139:958
DΝ
TI
     Aminodiols useful in the treatment of Alzheimer's disease and similar
IN
     Schostarez, Heinrich J.; Hanson, Gunnar J.
PA
     Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn
SO
     PCT Int. Appl., 535 pp.
     CODEN: PIXXD2
DT
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LΑ
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             NE, SN, TD, TG
PRAI US 2001-332863P
                            20011119
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os
     MARPAT 139:958
     The invention discloses aminodial compds. which modulate the activity of
AB
     \beta-amyloid-converting enzyme for the treatment of Alzheimer's disease and
     similar diseases.
ΙT
     120729-15-9 122994-22-3 122994-23-4
     122994-25-6
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     (Biological study); USES (Uses)
        (aminodiols for treatment of Alzheimer's disease)
RN
     120729-15-9 CAPLUS
CN
     4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[(1S,2R,3S)-1-
     (cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-
     methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX
     NAME)
```

Absolute stereochemistry.

RN 122994-22-3 CAPLUS
CN L-Arabinitol, 1-cyclohexyl-1,2,5-trideoxy-2-[[(2S)-4-methyl-2-[[(2S)-2-[(4-morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]amino]-1-oxopentyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 122994-23-4 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R)-1-(cyclohexylmethyl)-2,3-dihydroxypropyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 122994-25-6 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-carboxy-3-methylbutyl]amino]-

2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
2002:964345 CAPLUS Full-text
AN
DN
     138:24952
     Preparation of novel amino nitriles useful as reversible inhibitors of
TI
     cysteine proteases
     Hickey, Eugene R.; Bekkali, Younes; Patel, Usha R.; Spero, Denice M.;
IN
     Thomson, David S.; Young, Erick R. R.
     Boehringer Ingelheim Pharmaceuticals, Inc., USA
PΑ
so
     PCT Int. Appl., 223 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                                           APPLICATION NO.
                                                             DATE
     PATENT NO.
                      KIND
                            DATE
     WO 2002100849
                       A2
                            20021219
                                           WO 2002-US17590
                                                             20020605
PΙ
     WO 2002100849
                       A3
                            20031016
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
MT
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                           US 2002-163015
                            20030626
                                                           20020604
     US 2003119827
                       A1
                            20040324
                                           EP 2002-741825
                                                             20020605
     EP 1399431
                       A2
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2001-296863P
                       Ρ
                            20010608
     WO 2002-US17590
                       Μ.
                            20020605
     MARPAT 138:24952
os
     Novel nitrile compds. YCO2CR2R3C(:X)NR6CR4R5CN [Y = R1, R10, R1S, R12N,
AΒ
     R13C, where R1 = H, (un) substituted (cyclo) alkyl, aryl, benzyl,
     tetrahydronaphthyl, indenyl, indanyl, alkylsulfonylalkyl,
     cycloalkylsulfonylalkyl, arylsulfonylalkyl, heterocyclyl, or heteroaryl;
     R2-R5 = H, (un)substituted (cyclo)alkyl, aryl, etc. or CR2R3 and CR4R5
     may form rings; R6 = H, OH, or (cyclo)alkyl; X = O or S (with provisos)]
     or their pharmaceutically-acceptable derivs. were prepared as reversible
     inhibitors of cysteine proteases such as cathepsin K, S, F, L and B for
     treating diseases and pathol. conditions exacerbated by these proteases
     such as osteoporosis, rheumatoid arthritis, multiple sclerosis, asthma
     and other autoimmune diseases, Alzheimer's disease, and atherosclerosis.
     Thus, morpholine-4-carboxylic acid 1-
     [[(benzyloxymethyl)cyanomethyl]carbam oyl]-3-methylbutyl ester was
     prepared from N-(tert-butoxycarbonyl)-O-benzyl- L-serine, 2-
     Hydroxyisocaproic acid, and 4-morpholinecarbonyl chloride.
     478279-48-0P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT
     (Reactant or reagent)
        (preparation of novel amino nitriles as reversible inhibitors of
cysteine
        proteases)
RN
     478279-48-0 CAPLUS
```

ANSWER 4 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

L4

CN 4-Morpholinecarboxylic acid, (1S)-1-[[[(1S)-2-amino-2-oxo-1-[(phenylmethoxy)methyl]ethyl]amino]carbonyl]-3-methylbutyl ester (9CI) (CA INDEX NAME)

```
2002:946262 CAPLUS Full-text
AN
DN
     138:24946
     Preparation of amide compounds and compositions as selective cathepsin S
ΤI
     inhibitors
     Graupe, Michael; Li, Jiayao; Link, John O.; Zipfel, Sheila; Timm,
IN
Andreas
     P.; Aldous, David J.; Thurairatnam, Sukanthini
     Axys Pharmaceuticals, Inc., USA; Aventis Pharmaceuticals Inc.
PΑ
     PCT Int. Appl., 196 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
     PATENT NO.
                                            _____
                                           WO 2002-US17411
                                                             20020603
     WO 2002098850
                            20021212
PΙ
                       A2
                       A3
                            20030424
     WO 2002098850
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     EP 1397340
                            20040317
                                          EP 2002-734640
                                                           20020603
                       A2
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                            20010601
PRAI US 2001-295301P
                       Ρ
     WO 2002-US17411
                            20020603
                       W
     MARPAT 138:24946
OS
GΙ
```

ANSWER 5 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

L4

The invention relates to compds. R3C(X2)(X7)CO-X1 [X1 = NHC(R1)(R2)X3 or NHX4; X2 = H, F, OH, OR4, NHR15, or NR17R18; X7 = H or X2 = X7 = F; R3 = alkyl or CR62X6; X3 = cyano, CR7R8R16, CR6(OR6)2, CH2COR16, CH:CHSO2R5, COCF2CONR52, COCONR5R6, COCO2R5, COCH2OR5, COCH2NR6SO2R5, or COCOR5; where R5 is H or (un)substituted alkyl; R6 is H, OH or NR5R6 is a ring; R7 is H, alkyl and R8 is OH or CR7R8 are oxo; R16 is H, X4, CF3, NR6OR6, etc.; X4 comprises a heteromono- or -bicyclic ring; R1 = H, alkyl; R2 = H, cyano; R2 = H, cyano, -X5-NR122, -X5-NR12COR12, etc., where X5 is a bond or alkylene and R12 is H, alkyl, or haloalkyl; or CR1R2 may form a

ring; R4 = alkylene-NR122, alkylene-NR12-COR12, etc.; X6 = -X5-NR122, -X5-NR12COR12, etc.; R15 = H, alkyl; R17, R18 = (un)substituted alkyl (with provisos)] and their pharmaceutically acceptable salts and N-oxides as selective cathepsin S inhibitors for use as therapeutic agents. Thus, ester I was prepared via amide coupling reaction and showed Ki .ltorsim. 0.01 μM for inhibition of cathepsin S.

IT 477938-51-5P 477938-54-8P 477938-55-9P 477938-59-3P 477938-65-1P 477938-99-1P 477939-00-7P 477939-27-8P 477939-28-9P 477939-29-0P 477939-30-3P 477939-31-4P 477939-82-5P 477939-83-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amide compds. and compns. as selective cathepsin S inhibitors)

RN 477938-51-5 CAPLUS

CN 4-Morpholinecarboxylic acid, (1R)-2-[[(1S)-1-(2-benzoxazolylcarbonyl)propyl]amino]-2-oxo-1-

Absolute stereochemistry.

RN 477938-54-8 CAPLUS

RN 477938-55-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1R)-2-[[(1S)-1-(2-benzothiazolylcarbonyl)propyl]amino]-1-[[[[2-

(difluoromethoxy)phenyl]methy

l]sulfonyl]methyl]-2-oxoethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477938-59-3 CAPLUS

Absolute stereochemistry.

RN 477938-65-1 CAPLUS
CN 4-Morpholinecarboxylic acid, (1R)-1-[[[[2-

(difluoromethoxy)phenyl]methyl]s

ulfonyl]methyl]-2-[[(1S)-1-ethyl-2,3-dioxo-3[(phenylmethyl)amino]propyl]a

mino]-2-oxoethyl ester (9CI) (CA INDEX NAME)

RN 477938-99-1 CAPLUS

CN 4-Morpholinecarboxylic acid, (1R)-2-[[(1S)-1-(oxazolo[4,5-b]pyridin-2-ylcarbonyl)propyl]amino]-2-oxo-1-[[(phenylmethyl)sulfonyl]methyl]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477939-00-7 CAPLUS

CN 4-Morpholinecarboxylic acid, (1R)-2-[[(1S)-1-[(5-ethyl-1,3,4-oxadiazol-2-

yl)carbonyl]propyl]amino]-2-oxo-1-[[(phenylmethyl)sulfonyl]methyl]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477939-27-8 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-(2-benzoxazolylcarbonyl)propyl]amino]-1-(cyclohexylmethyl)-2-oxoethyl ester (9CI) (CA INDEX NAME)

RN 477939-28-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-1-(cyclohexylmethyl)-2-[[(1S)-1-(oxazolo[4,5-b]pyridin-2-ylcarbonyl)propyl]amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477939-29-0 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-1-(cyclohexylmethyl)-2-[[(1S)-1-[(5-ethyl-1,3,4-oxadiazol-2-yl)carbonyl]propyl]amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477939-30-3 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-1-(cyclohexylmethyl)-2-oxo-2-[[(1S)-1[(5-phenyl-1,3,4-oxadiazol-2-yl)carbonyl]propyl]amino]ethyl ester (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

RN 477939-31-4 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-1-[[[(1S)-1-(2-

benzoxazolylcarbonyl)propyl]amino]carbonyl]-3-cyclohexylpropyl ester
(9CI)(CA INDEX NAME)

Absolute stereochemistry.

RN 477939-82-5 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-(oxazolo[4,5-b]pyridin-2-ylcarbonyl)propyl]amino]-2-oxo-1-[[(phenylmethyl)sulfonyl]methyl]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477939-83-6 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[(5-ethyl-1,3,4-oxadiazol-2-yl)carbonyl]propyl]amino]-2-oxo-1-[(phenylmethyl)sulfonyl]methyl]ethyl ester (9CI) (CA INDEX NAME)

App's

```
L4
     ANSWER 6 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
ΑN
     2001:730702 CAPLUS Full-text
DN
     135:273216
TI
     Preparation of carbamate caspase inhibitors
     Bebbington, David; Charrier, Jean-Damien; Kay, David; Knegtel, Ronald;
IN
     Golec, Julian; Mortimore, Michael; Studley, John
PA
     Vertex Pharmaceuticals Incorporated, USA
SO
     PCT Int. Appl., 93 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                               DATE
                        Α2
PI
     WO 2001072707
                             20011004
                                             WO 2001-US10182 20010329
     WO 2001072707
                        A3
                             20020523
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                             20020307
                                            US 2001-821161
                                                               20010329
     US 2002028803
                        Α1
     US 6689784
                        B2
                             20040210
     EP 1268425
                        A2
                             20030102
                                             EP 2001-922868
                                                               20010329
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     BR 2001009588
                             20030204
                                             BR 2001-9588
                                                               20010329
                        Α
     JP 2003528855
                        T2
                             20030930
                                             JP 2001-570620
                                                               20010329
                             20040216
                                             EE 2002-550
                                                               20010329
     EE 200200550
                        Α
     BG 107136
                             20030530
                                             BG 2002-107136
                                                               20020923
                        Α
                             20021126
                                             NO 2002-4661
                                                               20020927
     NO 2002004661
                        Α
                                             US 2003-645043
                                                               20030821
     US 2004053920
                        A1
                             20040318
PRAI US 2000-192826P
                        P
                             20000329
     US 2001-821161
                        А3
                             20010329
     WO 2001-US10182
                             20010329
                        W
     MARPAT 135:273216
OS
GΙ
                                    II
```

AB Carbamate derivs. I [Z is O, S; R1 is H, CHN2, R (R is C1-12 aliphatic, aryl, aralkyl, heterocyclyl, orheterocyclylalkyl), CH2OR, CH2SR, or CH2Y (Y is an electroneg. leaving group); R2 is CO2H, CH2CO2H or esters, amides or isosteres; R3 is a group capable of fitting into the S2 subsite of a caspase enzyme; R4R5N is a mono-, bi- or tricyclic heterocyclic ring system] were prepared as caspase inhibitors. The compds. are effective inhibitors of apoptosis and IL-1β secretion. Thus, compound II was prepared by amidation of (S)-3-methyl-2- (carbazole) carbamoyloxybutyric acid (preparation given) with 3-amino-5-fluoro-4-hydroxypentanoic acid tert-Bu ester, followed by oxidation of the hydroxy group using Dess-Martin periodinane and ester cleavage.

IT 363154-80-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU(Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT(Reactant or reagent); USES (Uses) (preparation of carbamate caspase inhibitors)

RN 363154-80-7 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl_ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

TT 363154-82-9P 363154-84-1P 363154-86-3P 363154-88-5P 363154-90-9P 363154-92-1P 363154-94-3P 363154-96-5P 363155-04-8P 363155-06-0P 363155-02-6P 363155-10-6P 363155-12-8P 363155-14-0P 363155-16-2P 363155-18-4P 363155-20-8P 363155-22-0P 363155-32-2P 363155-34-4P 363155-36-6P 363155-38-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of carbamate caspase inhibitors)

RN 363154-82-9 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363154-84-1 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 3,6-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-86-3 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363154-88-5 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2,3-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-90-9 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-(trifluoromethyl)-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-92-1 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, 2-methyl-, (1S)-1-[[[1-(carboxymethyl)-3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363154-94-3 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-96-5 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363154-98-7 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-

3-

fluoro-2-oxopropyl]amino]carbonyl]propyl ester (9CI) (CA INDEX NAME)
Absolute stereochemistry.

RN 363155-00-4 CAPLUS

CN 1H-Indole-1-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

544/491

RN 363155-02-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

544/31

RN 363155-04-8 CAPLUS
CN 10H-Phenothiazine-10-carboxylic acid, 2-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-06-0 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3-chloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropylester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-08-2 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 2,7-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

RN 363155-10-6 CAPLUS

CN 10H-Phenothiazine-10-carboxylic acid, 3,4-dichloro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-12-8 CAPLUS

CN 5(6H)-Phenanthridinecarboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-

2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

546/109

RN 363155-14-0 CAPLUS

CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-16-2 CAPLUS

CN 5H-Dibenz[b,f]azepine-5-carboxylic acid, 10,11-dihydro-, (1S)-1-[[[1-(carboxymethyl)-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-18-4 CAPLUS

CN 1H-Indole-1-carboxylic acid, 2,3-dihydro-, (1S)-1-[[[1-(carboxymethyl)-3-

fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX
NAME)

RN 363155-20-8 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(diethylamino)-2-oxoethyl]3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA
INDEX
NAME)

Absolute stereochemistry.

RN 363155-22-0 CAPLUS
CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(ethylamino)-2-oxoethyl]-3fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-24-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-26-4 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-[[2-(dimethylamino)ethyl]amino]-2-oxoethyl]-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-30-0 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(cyclohexyloxy)-2-oxoethyll-

3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX

NAME)

RN 363155-32-2 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-2-oxo-1-(2-oxo-2-propoxyethyl)propyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-34-4 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-[2-(1-methylethoxy)-2-oxoethyl]-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 363155-36-6 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[3-fluoro-1-(2-methoxy-2-oxoethyl)-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI) (CA INDEX NAME)

RN 363155-38-8 CAPLUS

CN Cholest-5-en-3-ol (3β) -, 3-[[(2S)-2-[(9H-carbazol-9-ylcarbonyl)oxy]-3-methyl-1-oxobutyl]amino]-5-fluoro-4-oxopentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

— (CH2)3 CHMe2

IT 363155-47-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of carbamate caspase inhibitors)

RN 363155-47-9 CAPLUS

CN 9H-Carbazole-9-carboxylic acid, (1S)-1-[[[1-[2-(1,1-dimethylethoxy)-2-oxoethyl]-3-fluoro-2-oxopropyl]amino]carbonyl]-2-methylpropyl ester (9CI)(CA INDEX NAME)

- L4 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:170603 CAPLUS Full-text
- DN 130:346860
- TI Potent, orally bioavailable somatostatin agonists: good absorption achieved by urea backbone cyclization
- AU Pasternak, Alexander; Pan, Yanping; Marino, Dominick; Sanderson, Philip E.; Mosley, Ralph; Rohrer, Susan P.; Birzin, Elizabeth T.; Huskey, Su-Er Wu; Jacks, Tom; Schleim, Klaus D.; Cheng, Kang; Schaeffer, James M.; Patchett, Arthur A.; Yang, Lihu
- CS Department of Medicinal Chemistry, and Biochemistry & Physiology, Merck Research Laboratories, Rahway, NJ, 7065, USA
- SO Bioorganic & Medicinal Chemistry Letters (1999), 9(3), 491-496 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- AB Backbone cyclization of urea-based somatostatin agonists resulted in novel, orally bioavailable agonists. Binding assays confirmed that the resulting conformationally constrained cyclic ureas retained the potency of their acyclic counterparts. SAR studies subsequently led to highly potent analogs, selective for receptor subtype 2, and having good oral bioavailability.
- IT 224961-44-8

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(orally bioavailable somatostatin agonists)

- RN 224961-44-8 CAPLUS
- CN Spiro[1H-indene-1,4'-piperidine]-1'-carboxylic acid, (1R)-2-[[(1S)-5-amino-
- $1-(\texttt{methoxycarbonyl})\,\texttt{pentyl}]\,\texttt{amino}]\,-1-(1\\\text{H-indol-3-ylmethyl})\,-2-\texttt{oxoethyl}\,\texttt{ester}$

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 8 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
     1995:978676 CAPLUS Full-text
AN
DN
     124:30427
ΤI
     Preparation of antimalarial aspartic protease inhibitors.
IN
     Russell, Mark A.; Mueller, Richard A.; Bryant, Martin L.; Hanson, Gunnar
     G.D. Searle and Co., USA
PA
SO
     PCT Int. Appl., 48 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
PI
     WO 9519958
                       A1
                            19950727
                                            WO 1995-US17
                                                              19950112
             AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,
             GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,
             MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT,
             UA, US
         RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU,
             MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,
             TD, TG
     CA 2181551
                       AA
                             19950727
                                            CA 1995-2181551
                                                              19950112
     AU 9515968
                       A1
                             19950808
                                            AU 1995-15968
                                                              19950112
     EP 741696
                            19961113
                       Α1
                                            EP 1995-907965
                                                              19950112
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     CN 1139427
                       Α
                             19970101
                                            CN 1995-191359
                                                              19950112
     JP 09508365
                       T2
                            19970826
                                            JP 1995-519566
                                                              19950112
                            19940125
PRAI US 1994-186379
     WO 1995-US17
                            19950112
OS
     MARPAT 124:30427
GΙ
```

BOCNH

AR6NCHR1CHOP1CHR2CHR5CR3R4OP2 (P1, P2 = H, alkanoyl; P1P2 = CO, CR7R8; R7, R8 = H, alkyl, aryl, cycloalkyl, cycloalkylalkyl, aralkyl; R1-R4 = alkyl, aryl, cycloalkyl, cycloalkylalkyl, alkenylalkyl, alkynylalkyl, aralkyl; R5 = Me, Et, Pr, Bu, Me2CHCH2, Me3C, aryl, cycloalkyl, aralkyl, etc.; R6 = H, alkyl; A = alkylcarbonyl, haloalkylcarbonyl, alkoxycarbonyl, aralkoxycarbonyl, R11R12NCHR1OC:Y; Y = O, S; R10 = H, CH2SO2NH2, cyanoalkyl, aralkyl, heteroaryl, alkenyl, alkynyl, etc.; R11 = H, alkoxycarbonyl, aralkoxycarbonyl, alkanoyl, aroyl, heteroaralkoxycarbonyl, alkyl, aryl, hydroxyalkyl, etc.; R12 = H, alkyl,

Ι

aralkoxycarbonylalkyl, aminocarbonylalkyl, etc.), were prepared Thus, title compound (I), prepared by solution phase methods from lactone (II), at 10 μ M gave 45% inhibition of Plasmodium falciparum HB3 late ring stage cultures.

IT 171347-68-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of antimalarial aspartic protease inhibitors) 171347-68-5 CAPLUS

RN 171347-68-5 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2,5-dihydroxy-4-

methylpentyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1- (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 122994-25-6

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of antimalarial aspartic protease inhibitors)

RN 122994-25-6 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-carboxy-3-methylbutyl]amino]-

2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:974943 CAPLUS Full-text

DN 124:105468

TI Transport of peptidomimetic renin inhibitors across monolayers of a human intestinal cell line (Caco-2): evidence for self-enhancement of paracellular transport route

AU Walter, Elke; Kissel, Thomas; Raddatz, Peter

CS Coll. Pharmacy, Univ. Michigan, Ann Arbor, MI, 48109-1065, USA

SO Pharmaceutical Research (1995), 12(11), 1801-5 CODEN: PHREEB; ISSN: 0724-8741

PB Plenum

DT Journal

LA English

AB It appears that some of the peptidomimetic renin inhibitors facilitate their own penetration by enhancing the tight junction permeability through an as yet unknown mechanism. These peptides warrant further investigation, because they may provide the crucial information to guide their preferential transport via the paracellular pathway in vitro in monolayers of the intestinal cell line Caco-2 and may be in vivo in the intestinal epithelium.

IT 139470-23-8 139470-25-0 143122-51-4 143142-38-5 143169-37-3 172666-03-4 172666-04-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(self-enhancement of paracellular transport of peptidomimetic renin inhibitors across monolayers of human intestinal cell line Caco-2)

RN 139470-23-8 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4-

trideoxy-5-S-4-pyridinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 139470-25-0 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4-

trideoxy-5-S-2-pyrimidinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

RN 143122-51-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-[(5-methyl-1,3,4-thiadiazol-2-yl)thio]butyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[R*[S*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 143142-38-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-thiazolylthio)butyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[R*[S*(R*)],2R*]]-(9CI) (CA INDEX NAME)

RN 143169-37-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(2-pyridinyloxy)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[R*[S*(R*)],2S*]]-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172666-03-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4- [(methylthio)methyl]-2,5,12-trioxo-1-(phenylmethyl)-13-oxa-11-thia-3,6-diazatetradec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172666-04-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-[(methylthio)methyl]-11,11-dioxido-2,5,12-trioxo-1-(phenylmethyl)-13-oxa-11-thia-3,6-diazatetradec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:833312 CAPLUS Full-text

DN 124:87802

TI Preparation of norstatine peptide analogs as orally active renin inhibitors

IN Hoover, Dennis J.; Lefker, Bruce A.; Rosati, Robert L.

PA Pfizer Inc., USA

SO U.S., 62 pp. Cont. of U.S. Ser. No. 638, 238, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5442044	Α	19950815	US 1993-28038	19930308
PRA	AI US 1991-638238		19910104		
os	MARPAT 124:87802				
GT					

$$R^{2}$$
 R^{2}
 R^{2

AΒ Peptide analogs I [m, n = independently 0, 1; R1, R2 = independently H, C1-8 alkyl, C1-6 alkoxy-C2-8 alkyl, C1-6 alkylamino-C2-8 alkyl, di(C1-8 alkyl) amino-C28 alkyl; NR1R2 = 4-8 membered ring with 0-2 O or N atoms, optionally containing 1-2 OH or C1-6 alkyl groups attached to ring C or N atoms; R7 = C1-7 alkyl or absent, with the proviso that when R7 is absent, the N does not carry a pos. charge and X- is absent; X-=pharmaceutically acceptable anion or shared anion; Z = CH2, O, NH; R3 = Ph, C5-7 cycloalkyl, 1-naphthyl, 2-naphthyl, CH2Ph, 2-thenyl, 3-thienyl, where the Ph is optionally substituted with 1-2 C1-5 alkoxy groups and/or 1-2 halogen atoms; R4 = C1-8 alkyl, C1-8 alkyl substituted with hydroxy, C1-8 alkylthio, C1-8 alkoxy, 4-imidazolylmethyl, thienylmethyl, or C2-8 alkenylmethyl groups; R5 = C5-C7 cycloalkyl, Ph; R6 = C02C1-8 alkyl, CONHR8, CONR11R12; R8 = C1-8 alkyl substituted with 1-3 halogen atoms; R11, R12 = independently H, C1-8 alkyl] and the pharmaceutically acceptable salts thereof are claimed as orally active renin inhibitors and are useful as antihypertensive agents. Thus, reductive amination of norstatine peptide II with amines R1R2NH gave amino derivs. III, which had IC50 less than 50 nanomolar against human plasma renin at pH 7.4.

IT 137962-60-8P 138125-47-0P 172281-65-1P 172340-84-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of norstatine peptide analogs as orally active renin inhibitors)

RN 137962-60-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138125-47-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

monohydrochloride, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

CN 1-Piperidinecarboxylic acid, 4-(1-pyrrolidinyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-(hydroxymethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172340-84-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(1-pyrrolidinyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-(hydroxymethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, monohydrochloride, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

IT 138021-77-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of norstatine peptide analogs as orally active renin inhibitors)

RN 138021-77-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]](9CI) (CA INDEX NAME)

Absolute stereochemistry.

137991-70-9P 137991-71-0P 137991-72-1P ΙT 137991-73-2P 137991-74-3P 137991-75-4P 137991-76-5P 137991-77-6P 137991-79-8P 137991-96-9P 137991-99-2P 137992-00-8P 137992-01-9P 137992-04-2P 138021-54-2P 138021-56-4P 138021-57-5P 138126-36-0P 172340-92-0P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of norstatine peptide analogs as orally active renin inhibitors) 137991-70-9 CAPLUS RN1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-CN (cyclohexylmethyl) -2-(1,3-dioxan-2-yl) -2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137991-71-0 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dioxan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-70-9 CMF C33 H52 N4 O7 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-72-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithiolan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

RN 137991-73-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1(cyclohexylmethyl)-2-(1,3-dithiolan-2-yl)-2-hydroxyethyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl
ester,
[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-72-1
CMF C32 H50 N4 O5 S3

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-75-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithian-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-74-3 CMF C33 H52 N4 O5 S3

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-76-5 CAPLUS

CN [1,4'-Bipiperidine]-1'-carboxylic acid, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137991-77-6 CAPLUS
CN [1,4'-Bipiperidine]-1'-carboxylic acid, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*,3R*]]-, monomethanesulfonate (salt) (9CI) (CA
INDEX
NAME)

CM 1

CRN 137991-76-5
CMF C38 H68 N4 O6 S

CRN 75-75-2 CMF C H4 O3 S

RN 137991-79-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(4-morpholinyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*,3R*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX

NAME)

CM 1

CRN 137991-78-7

CMF C37 H60 N4 O7 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-96-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl

monohydrochloride, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 137991-99-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dioxan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137992-00-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithiolan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137992-01-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithian-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137992-04-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]2oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

RN 138021-54-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 1-(cyclohexylmethyl)-2[[2[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
monohydrochloride, [1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 138021-56-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

RN 138021-57-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-oxo-, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138126-36-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 172340-92-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 1-(cyclohexylmethyl)-2[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl
ester,[1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

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ANSWER 11 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
ΑN
     1995:315543 CAPLUS Full-text
DN
     122:106533
     Preparation of cyclohexyl(phenylalanyl)(histidinyl)aminoheptanols as
ΤI
renin
     Shibata, Saizo; Yamada, Yasuki; Ando, Koji; Fukui, Kiyoshi
IN
PA
     Japan Tobacco Inc., Japan
SO
     PCT Int. Appl., 85 pp.
     CODEN: PIXXD2
DT
     Patent
     Japanese
LA
FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO.
                                                            DATE
                      ____
                            _____
PΙ
     WO 9406755
                      A1
                            19940331
                                           WO 1993-JP1330
                                                            19930916
         W: CA, KR, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     JP 06199891
                                          JP 1993-230365
                       A2
                            19940719
                                                            19930916
PRAI JP 1992-273430
                            19920918
     MARPAT 122:106533
OS
GI
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
     The title compds. I [A represents WXYCHR1CO, etc; W represents Q1, etc.;
AΒ
     X represents CO or SO2; Y represents CH2, O, etc.; R1 represents aralkyl
     which may be substituted by lower alkoxy; R2 represents hydrogen or
     lower alkyl; R3 represents Q2, etc.; R4 represents lower alkyl, lower-
     alkoxy-substituted lower alkyl, optionally lower-alkoxy-substituted
     benzyl, etc.; R5 represents lower alkyl; T = H, lower alkyl, etc.] are
     prepared In an in vitro renin inhibiting test using plasma, title
     compound II (preparation given) showed IC50 of 3.7 x 10-9 M.
TТ
     160504-44-9P 160504-46-1P 160504-48-3P
     160504-55-2P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (preparation of, as renin inhibitor)
RN
     160504-44-9 CAPLUS
CN
     1-Piperidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-
     methoxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-
oxoethyl]amino]-
     2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]- (9CI)
```

Absolute stereochemistry.

INDEX NAME)

(CA

RN 160504-46-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-methoxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 160504-48-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methyl-4-(phenylmethoxy)hexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]- (9CI) (CA INDEX NAME)

RN 160504-55-2 CAPLUS

1-Piperidinecarboxylic acid, 4-methoxy-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-methoxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]- (9CI) (CA INDEX NAME)

```
ANSWER 12 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
    1995:246513 CAPLUS Full-text
ΑN
    122:31505
DN
    preparation of dioxacycloalkane compounds having renin-inhibitory
TI
activity
    Shibata, Saizo; Yamada, Yasuki; Ando, Koji; Fukui, Kiyoshi
IN
     Japan Tobacco, Inc., Japan; Yoshitomi Pharmaceutical Industries, Ltd.
PA
    PCT Int. Appl., 117 pp.
SO
     CODEN: PIXXD2
DT
    Patent
     Japanese
LA
FAN.CNT 1
                                         APPLICATION NO.
    PATENT NO.
                     KIND DATE
     _____
                                         WO 1993-JP1156
                           19940303
                                                           19930818
    WO 9404523
                     A1
PI
        W: CA, JP, KR, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                        EP 1993-919555
                                                           19930818
     EP 656356
                           19950607
                      A1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,
SE
     JP 2630506
                           19970716
                                          JP 1993-506109
                                                           19930818
                                          US 1995-387808
                                                           19950221
    US 5750696
                           19980512
                      Α
PRAI JP 1992-244037
                           19920821
     WO 1993-JP1156
                           19930818
    MARPAT 122:31505
OS
GI
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
     The title compds. [I; A = heterocyclylacyl, etc.; R2 = H, alkyl; R3 =
     CH2, CH2CH2], useful as antihypertensives and in treating cardiac
```

- AB alkylthioalkyl, imidazolylmethyl; R4, R5 = H, alkyl; E = (un)substituted insufficiency, are prepared A solution of 4N HCl-dioxane and isopentyl nitrite were added to a solution of II (preparation given) in DMF with stirring at -30°, the mixture was cooled to -70°, neutralized with Et3N and treated with III (preparation given), and the mixture was stirred at -4° to give IV, which showed IC50 of 9x10-9 M against renin activity in human blood plasma and lowered the blood pressure by 10-12% at 10~mg/kgp.o. in marmoset.
- 159631-70-6P 159631-71-7P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and reaction of, in preparation of renin inhibitors)

159631-70-6 CAPLUS RN

1-Piperazinecarboxylic acid, 4-methyl-, 2-[[2-methoxy-1-CN

[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

 $[S-(R^*,S^*)]-(9CI)$ (CA INDEX NAME)

RN 159631-71-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-methyl-, 2-[[1-carboxy-2-(methylthio)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [S-(R*,S*)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 159631-75-1 CAPLUS
CN D-xylo-Heptitol, 1-cyclohexyl-1,2,4,7-tetradeoxy-6-C-methyl-5,6-O-methylene-2-[[2-[[2-[[(4-methyl-1-piperazinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-, [S-(R*,S*)]-(9CI)
(CA INDEX NAME)

```
L4 ANSWER 13 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 1995:67122 CAPLUS Full-text

DN 122:230104

Potent renin inhibition activity of tetrapeptide mimetics with a 1,2-hydroxyazidoethylene group connecting the P1 and P1' residues

AU Almquist, R. G.; Nakazato, A.; Kameo, K.; Fukushima, H.; Chao, W.-R.

CS Biogen Inc., Cambridge, MA, 02142, USA

SO Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp., 13th (1994), Meeting

Date 1993, 281-3. Editor(s): Hodges, Robert S.; Smith, John A. Publisher:

ESCOM, Leiden, Neth.

CODEN: 60LXAW

DT Conference

LA English

а

AB When tested with human renin, tetrapeptide mimetics with a 1,2-hydroxyazidoethylene group were more potent than compds. with a hydroxyamino group. Also the stereochem. for the most active isomer in the hydroazido series was the same as that reported earlier for the most active isomer in the dihydroxy series.

IT 148945-39-5 162128-97-4 162128-98-5 162128-99-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); PRP (Properties); BIOL (Biological study) (potent human renin inhibition activity of tetrapeptide mimetics with

1,2-hydroxyazidoethylene group connecting the P1 and P1' residues)

RN 148945-39-5 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-2-hydroxy-5-methyl-1-(2-methylpropyl)hexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-

oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]-(9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 162128-97-4 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-amino-2-hydroxy-5-methyl-1-(2-methylpropyl)hexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-

oxo-1-(phenylmethyl) ethyl ester, $[1S-[1R^*[R^*(R^*)], 2R^*, 3R^*]]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

RN 162128-98-5 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(2-azido-1-hydroxy-4-methylpentyl)nonyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1R-[1R*[S*[S*(S*)]],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 162128-99-6 CAPLUS

4-Morpholinecarboxylic acid, 2-[[2-[[1-(2-amino-1-hydroxy-4-methylpentyl)nonyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 47 CAPLUS . COPYRIGHT 2004 ACS on STN

AN 1994:410003 CAPLUS Full-text

DN 121:10003

TI Preparation of peptides by reaction of olefinic alcohol and enol ether for treatment of tachypnea and myocardial reperfusion injury.

IN Itsumi, Keiji; Kei, Seihaku; Fukami, Jikiki; Hashihon, Sanashi

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 131 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 3

FAN.CNT 3				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05208914	A2 .	19930820	JP 1992-233604	19920901
US 5430022	A	19950704	US 1993-86094	19930706
US 5656604	Α	19970812	US 1995-422944	19950417
PRAI US 1991-753997		19910903		
GB 1990-10740		19900514		
GB 1990-26254		19901203		
GB 1991-4064		19910227		
US 1991-696701		19910507		
US 1992-845056		19920303		
US 1993-86094		19930706		
OS MARPAT 121:10003				
GI				

Title compds. I [R1 = H, acyl; R2 = alkyl, (un)substituted aralkyl, cycloalkylalkyl, (un)substituted heterocyclylalkyl; R3 = (un)substituted heterocyclylalkyl, (un)substituted aralkyl; R4 = H, (un)substituted alkyl; R5 = carboxy, (un)protected carboxy, (un)protected carboxyalkyl; R6 = H, (un)substituted alkyl; R7 = H, alkyl; A = O, NH, alkylimino, alkylene; with provisos], useful for the treatment of many cardiovascular injury, e.g., hypertension, are prepared Thus, a mixture of N-phenylacetyl-Leu-OH and H-D-Trp(Me)-D-Phe-OMe.HCl in DMF was stirred with ice cooling for 4.5 h to give PhCH2CO-Leu-D-Trp(Me)-D-Phe-OMe. In an in vitro study, Q-Leu-D-Trp(Me)-D-Pya-OH.HCl [Q = cyclohexylcarbamoyl, Pya = 2-pyridylalanine] (also prepared) had an IC50 of 2.3+10-9 M against the binding of 125-I-endothelin-1 with pig aorta receptors.

IT 142376-05-4P 142376-07-6P 142376-75-8P 142376-77-0P 142376-78-1P 142379-23-5P 142379-25-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, for treatment of tachypnea and myocardial reperfusion

injury)

RN 142376-05-4 CAPLUS

CN D-Alanine, N-[1-methyl-N-[4-methyl-1-oxo-2-[(1-piperidinylcarbonyl)oxy]pentyl]-D-tryptophyl]-3-(2-pyridinyl)-, ethyl ester, (S)- (9CI) (CA INDEX NAME)

RN 142376-07-6 CAPLUS

CN D-Alanine, N-[N-[2-[[(3,4-dihydro-2(1H)-isoquinolinyl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, ethyl ester,

(S) - (9CI) (CA INDEX NAME)

RN 142376-75-8 CAPLUS

CN D-Alanine, N-[1-methyl-N-[4-methyl-1-oxo-2-[(1-piperidinylcarbonyl)oxy]pentyl]-D-tryptophyl]-3-(2-pyridinyl)-, monosodium

salt, (S) - (9CI) (CA INDEX NAME)

Na

RN 142376-77-0 CAPLUS

CN D-Alanine, N-[N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, monosodium salt,

(S)(9CI) (CA INDEX NAME)

Na

RN 142376-78-1 CAPLUS

CN D-Alanine, N-[N-[2-[[(3,4-dihydro-2(1H)-isoquinolinyl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, monosodium salt, (S)- (9CI) (CA INDEX NAME)

Na

RN 142379-23-5 CAPLUS
CN D-Alaninamide, N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl1oxopentyl]-1-methyl-D-tryptophyl-3-(2-pyridinyl)-, (S)- (9CI) (CA INDEX

NAME)

- L4 ANSWER 15 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1994:207844 CAPLUS Full-text
- DN 120:207844
- TI Role of intestinal transport and first pass liver extraction on oral delivery of renin inhibitor compounds
- AU Kararli, Tugrul T.; Farhadieh, Bahram; Bittner, Steve; Babler, Maribeth; Yang, Po Chang; Walsh, Gerald M.
- CS G.D. Searle and Co., Skokie, IL, 60077, USA
- SO International Journal of Pharmaceutics (1994), 102(1-3), 177-84 CODEN: IJPHDE; ISSN: 0378-5173
- DT Journal
- LA English
- AΒ The absolute bioavailabilities of three renin inhibitor compds., one uncharged (compound I) and two pos. charged (compds. II and III), were found to be comparable (1-3%). To determine the role of intestinal transport and first pass liver extraction (FPLE) in the oral delivery of these compds. i.v., intraportal, intraduodenal and i.p. studies were performed in the rat. In the intraduodenal studies, drug solns. were injected into the duodenum of anesthetized rats and portal and systemic blood was collected. In the intraportal studies, the drug solns. were injected into the portal vein and systemic blood was collected. From the ratio of the area under the drug concentration-time curves (tAUC) for the oral and intraportal studies, the extent of intestinal transport of compds. I-III was estimated as 9.7, 2.2 and 2.2%, resp. In the intraduodenal studies the maximum portal plasma concns. of compds. I-III were 2.8, 0.5 and 0.2 μ g/mL, resp. The tAUC of compound I in portal plasma was 8-26-times higher than those for compds. II and III. From comparison of the intraportal and i.v. tAUC values, the FPLE of compds. I-III was estimated as 76 \pm 4, 61 \pm 3 and 8 \pm 23% (mean \pm SE), resp. Overall, the results indicated that the intestinal transport and FPLE of compound I was the highest among the three analogs. Compound II showed low intestinal transport and high FPLE and compound III showed low intestinal transport and low but variable FPLE.

IT 120729-15-9

RL: BIOL (Biological study)
(intestinal transport and liver extraction of, oral bioavailability in relation to)

- RN 120729-15-9 CAPLUS
- CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R,3S)-1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
AN 1993:626398 CAPLUS Full-text
DN 119:226398
TI Renin inhibitors containing a pyridyl amino diol derived C-terminus
AU Heitsch, Holger; Henning, Rainer; Kleemann, Heinz Werner; Linz,
Wolfgang; Nickel, Wolf Ulrich; Ruppert, Dieter; Urbach, Hansjoerg;
Wagner, Adalbert
CS Hoechst AG, Frankfurt/Main, 6230/80, Germany
SO Journal of Medicinal Chemistry (1993), 36(19), 2788-800
```

ANSWER 16 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

DT Journal LA English

GΙ

L4

CODEN: JMCMAR; ISSN: 0022-2623

AB Based on the concept of transition-state analogs, a series of nonpeptide renin inhibitors with the new (2S, 3R, 4S)-2-amino-1-cyclohexyl-3, 4dihydroxy-6-(2-pyridyl)hexane moiety at the C-terminal functionality were synthesized and evaluated for inhibition of renin both in vitro and in vivo. All compds. exhibited potencies in the nanomolar or even subnanomolar range when tested vs. human renin in vitro. Selected inhibitors were evaluated in anesthetized, sodium-depleted rhesus monkeys and produced a marked reduction in mean arterial blood pressure (MAP) upon intraduodenal administration of a dose of 2 mg/kg. I.AcOH (S 2864), containing an amino piperidinylsuccinic acid-derived N-terminal, is the most promising member in this series. I.AcOH inhibited human renin with IC50 = 0.38 nM, did not affect other human aspartic proteinases, and decreased mean arterial blood pressure significantly by 27% with a duration of action of 90 min after administration of 2 mg/kg id in anesthetized, sodium-depleted rhesus monkeys.

IT 135632-32-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and deblocking of, in preparation of renin inhibitor)

RN 135632-32-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-

[[1-(2,4-dinitrophenyl)-1H-imidazol-4-yl]methyl]-2-oxoethyl]amino]-2-oxo-1-

(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

IT 150823-61-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and renin inhibitory activity of)

RN 150823-61-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135631-97-9 CMF C38 H53 N7 O6

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

```
AN
     1993:496179 CAPLUS Full-text
DN
     119:96179
     Hydroxy azido derivatives and related compounds as renin inhibitors
TI
     Almquist, Ronald G.; Nakazato, Atsuro
IN
     SRI International, USA
PΑ
     PCT Int. Appl., 109 pp.
SO
     CODEN: PIXXD2
     Patent
יזית
     English
LΑ
FAN.CNT 1
                                           APPLICATION NO. DATE
                      KIND
                            DATE
     PATENT NO.
                                           _____
                                                            19920506
                                           WO 1992-US3893
                      Α1
                            19921210
     WO 9221696
PΙ
         W: CA, JP, KR
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
                                                            19910607
                                           US 1991-712311
                       Α
                            19931207
     US 5268361
                                           CA 1992-2110381
                                                            19920506
                            19921210
     CA 2110381
                       AΑ
                                           EP 1992-913519
                                                            19920506
                            19940323
                      A1
     EP 587767
         R: DE, FR, GB, IT, NL
                                           JP 1992-500421
                                                            19920506
                            19940914
     JP 06508137
                       Т2
PRAI US 1991-712311
                            19910607
                            19920506
     WO 1992-US3893
     MARPAT 119:96179
OS
GT
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ANSWER 17 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

RCONR1CHR2CONHCHR3CH(OH)CR4R5N3 [R = CHR6CH2R7, CR6:CHR7; R1 = H, alkyl; R2 = alkyl, alkenyl, alkoxyalkyl, alkoxy, CH2Ph, heterocyclylmethyl; R3 = alkyl, cycloalkylmethyl, CH2Ph; R4 = H, alkyl, vinyl, aralkyl; R5 = H, alkyl; R6 = H, (un)substituted alkyl; R7 = alkyl, cycloalkyl, (un)substituted aryl] were prepared Thus, the histidine derivative I was obtained from Me3CO2C-Ph-OMe, protected histidine, and (R)-MeOCH2CH2OCH2CH2NMeCOCH2CH(CH2Ph)CO2H in 7 steps. I had a renininhibiting ED50 of 0.008 nM.

IT 148945-38-4P 148975-73-9P 148975-79-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT

L4

(Reactant or reagent)

(preparation and detosylation of)

RN 148945-38-4 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-2-hydroxy-5-methyl-1-(2-methylpropyl)hexyl]amino]-1-[[1-[(4-methylphenyl)sulfonyl]-1H-imidazol-

4yl]methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

$$[1S-[1R*[R*(R*)],2S*,3R*]]-(9CI)$$
 (CA INDEX NAME)

Absolute stereochemistry.

RN 148975-73-9 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-[[1-[(4-methylphenyl)sulfonyl]-1H-imidazol-

4-y1]methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 148975-79-5 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-1-(cyclohexylmethyl)-5-methyl-

IT 148945-39-5P 148975-74-0P 148975-80-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and renin-inhibiting activity of)

RN 148945-39-5 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-2-hydroxy-5-methyl-1-(2-methylpropyl)hexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-

2oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 148975-74-0 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-

2-oxo-1-(phenylmethyl) ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]-(9CI)

(CA INDEX NAME)

RN 148975-80-8 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[3-azido-1-(cyclohexylmethyl)-5-methyl-

2-oxohexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
ΑN
     1993:409168 CAPLUS Full-text
DN
     119:9168
     Preparation of oxiranyl and oxetanyl renin inhibiting compounds
ΤI
IN
     Rosenberg, Saul H.
     Abbott Laboratories, USA
PA
     PCT Int. Appl., 168 pp.
SO
     CODEN: PIXXD2
     Patent
DT
     English
LА
FAN.CNT 1
                                             APPLICATION NO.
                                                              DATE
     PATENT NO.
                       KIND
                             DATE
                             19921223
                                            WO 1992-US4423
                                                              19920526
     WO 9222313
                        A1
PΙ
         W: AU, CA, JP, KR
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
                                            US 1992-880250
                                                               19920513
                             19931102
     US 5258362
                        Α
                                            AU 1992-21593
                                                               19920526
     AU 9221593
                        Α1
                             19930112
                             19910611
PRAI US 1991-713475
     US 1992-880250
                             19920513
     WO 1992-US4423
                             19920526
OS
     MARPAT 119:9168
GΙ
```

ANSWER 18 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

L4

RNH
$$R^5$$
 R^6 R^7 R^8 RNH R^5 R^6 R^7 R^8 R^8

The title compds. I and II [R = mimic of Phe-His dipeptide; R4 = lower ΑВ alkyl, cycloalkyl, arylalkyl; R5 = H, lower alkyl, hydroxyalkyl, lower alkenyl, CHO; R6 = OH, NH2; R7 = H, lower alkyl; R8 = H, lower alkyl, hydroxyalkyl, alkoxyalkyl, alkoxyalkyl, thioalkoxyalkyl, haloalkyl, aminoalkyl, alkylaminoalkyl, dialkylaminoalkyl, cycloalkyl, cycloalkylalkyl, lower alkenyl, alkynyl, aryl, arylalkyl, heterocyclic, heterocycloalkyl; R7R8 = (CH2)n, n = 3-6; R9 = lower alkyl] or a pharmaceutically acceptable salt, ester, or prodrug of, were prepared as renin inhibitors. Thus, Reformatskii reaction of (4S,5R)-3-tertbutoxycarbonyl-4-cyclohexylmethyl-2,2-dimethyloxazolidine-5carboxaldehyde with benzyl bromoacetate gave hydroxy ester III (Boc = Me3CO2C; R1 = CO2CH2Ph), which was reduced with NaBH4-CaCl2 to diol III (R1 = CH2OH) and selectively tosylated to tosylate III (R1 = CH2O3SC6H4Me-4) (IV). Cyclization of tosylate IV to the corresponding oxetane, followed by acidic deprotection, coupling with Boc-Phe-His(Boc)-OH, and selective deblocking gave oxetanyl peptide V. Compds.

I and II are useful in treating hypertension, congestive heart failure, glaucoma, and inhibiting HIV-1 and HIV-2 proteases.

IT 147895-99-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as renin inhibitor)

RN 147895-99-6 CAPLUS

CN L-Altritol, 4,6-anhydro-1-cyclohexyl-1,2,5-trideoxy-5-ethyl-2-[[2-[[2-[(4- $\frac{1}{2}$

morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]amino]-1-oxo-3-(4-thiazolyl)propyl]amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

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L4 ANSWER 19 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 1992:634551 CAPLUS Full-text

DN 117:234551

TI histidine derivatives as inhibitors of renin, methods for their preparation, pharmaceuticals containing them and their use for the treatment of cardiac insufficiency (congestive cardiac insufficiency)

and

for the prophylaxis of HIV infections (HIV protease inhibitors)

IN Henning, Rainer; Urbach, Hansjoerg; Ruppert, Dieter; Linz, Wolfgang

PA Hoechst A.-G., Germany

SO PCT Int. Appl., 85 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	WO 9207845	A1 19920514	WO 1991-EP2011	19911023
	W: AU, CA,	FI, HU, JP, KR,	NO, PL, SU, US	
	RW: AT, BE,	CH, DE, DK, ES,	FR, GB, GR, IT, LU, NL	, SE
	AU 9187309	A1 19920526	AU 1991-87309	19911023
PRAI	DE 1990-9012088	19901033	•	
	EP 1990-120882	19901033		
	WO 1991-EP2011	19911023	3	
os	CASREACT 117:23	4551; MARPAT 11	7:234551	
GI				

Certain azacyclic acyl(aminoacyl)-substituted amino acid derivs. are claimed; the compds. contain structural residues that mimic the Leu-Val cleavage site of angiotensin. Said compds. are active as renin (angiotensin) inhibitors (no data). Said compds. are useful as antihypertensives and for the treatment of cardiac insufficiency (congestive cardiac insufficiency) and for the prophylaxis of HIV infections (HIV protease inhibitors) (no data). Treatment of H-His-(2S,3R,4S)-1-cyclohexyl-3,4-dihydroxy-6-methyl-2-heptylamide with 3-[[(4-BOCamino)-1-piperidinyl]carbonyl]-2(R)-benzylpropionic acid gave the histidine derivative I. The renin-inhibiting activity of I was not tested.

Ι

IT 143117-34-4P 143117-36-6P 143117-38-8P

143117-40-2P 143117-42-4P 143117-44-6P 143117-46-8P 143117-48-0P 143117-50-4P 143169-13-5P 143169-17-9P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor) RN 143117-34-4 CAPLUS CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2,3dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1R-[1R*[R*(R*)],2S*,3R*]]-, monoacetate (salt) (9CI) (CA INDEX NAME) CMCRN 143117-33-3 C35 H54 N6 O6 CMF

Absolute stereochemistry.

CM 2

CRN 64-19-7

CMF C2 H4 O2

о Но—С—СНЗ

RN 143117-36-6 CAPLUS

1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-(3-ethyl-2-oxo-5-oxazolidinyl)-2-hydroxyethyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[5S-[5R*[1R*[R*(R*)],2S*]]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-35-5 CMF C35 H51 N7 O7

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 143117-38-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-2-(3-methoxy-2-oxo-5-oxazolidinyl)ethyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [5S-[5R*[1R*[R*(R*)],2S*]]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-37-7 CMF C34 H49 N7 O8

CRN 64-19-7 CMF C2 H4 O2

RN 143117-40-2 CAPLUS CN L-lyxo-Heptonic acid, 6-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1- oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-7-cyclohexyl-2,3,6,7-tetradeoxy-2,2-dimethyl-, γ -lactone,

[S-(R*,R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-39-9 CMF C36 H52 N6 O7

CRN 64-19-7 CMF C2 H4 O2

о || но_С_Снз

RN 143117-42-4 CAPLUS

CN L-Arabinitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-

1,2,5-trideoxy-5-(4-morpholinyl)-, [S-(R*,R*)]-, diacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN . 143117-41-3 CMF C36 H55 N7 O7

CM 2

CRN 64-19-7 CMF C2 H4 O2

о || но_С_Снз

RN 143117-44-6 CAPLUS

CN L-Arabinitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

```
phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-
cyclohexyl-
    1,2,5-trideoxy-5-[[[(1-methylethyl)amino]carbonyl]amino]-, [S-(R*,R*)]-,
    monoacetate (salt) (9CI) (CA INDEX NAME)

CM    1

CRN    143117-43-5
    CMF    C36    H56    N8    O7
```

CRN 64-19-7 CMF C2 H4 O2

о но_С_СH3

CRN 64-19-7 CMF C2 H4 O2

RN 143117-48-0 CAPLUS

CN D-galacto-Heptitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-4,7-anhydro-1-cyclohexyl-1,2,5,6-tetradeoxy-6-methyl-, [S-(R*,R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-47-9 CMF C35 H52 N6 O6

CM 2

CRN 64-19-7 CMF C2 H4 O2

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[4-[(butylamino)carbonyl]-1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-49-1 CMF C40 H63 N7 O6

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 143169-13-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-(1-methylethyl)-13,13-dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia-3,6,12-triazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8S*,10R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143169-12-4 CMF C39 H63 N7 O7 S

CRN 64-19-7 CMF C2 H4 O2

HO-C-CH3

RN 143169-17-9 CAPLUS

CN D-galacto-Heptitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-1,2,5,6-tetradeoxy-6-methyl-, [S-(R*,R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143169-16-8 CMF C35 H54 N6 O7

CM 2

CRN 64-19-7 CMF C2 H4 O2

L4 ANSWER 20 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:619884 CAPLUS Full-text

DN 117:219884

TI Enhancement of nasal delivery of a renin inhibitor in the rat using emulsion formulations

AU Kararli, Tugrul T.; Needham, Thomas E.; Schoenhard, Grant; Baron, David A.; Schmidt, R. Eric; Katz, Barbara; Belonio, Bayani

CS G. D. Searle and Co., Skokie, IL, 60077, USA

SO Pharmaceutical Research (1992), 9(8), 1024-8 CODEN: PHREEB; ISSN: 0724-8741

DT Journal

LA English

GI

AB Nasal absorption of a renin inhibitor (I) was evaluated in two rat nasal models, one involving surgery and the other requiring no surgical intervention. Oleic acid/monoolein emulsion formulations were tested along with a control PEG 400 solution. The percent absolute bioavailability of the compound was enhanced from 3-6% (PEG 400 solution) to 15-27% when the emulsion formulations were used. The different nasal model techniques (with and without surgery) did not produce any statistical difference in the absolute bioavailability values for I. Emulsion formulations did not produce appreciable damage as assessed morphol. It is suggested the emulsion formulations containing membrane adjuvants such as oleic acid and monoolein can be used to enhance the nasal delivery of low-bioavailable, lipid-soluble drugs.

Ι

IT 120729-15-9

RL: BIOL (Biological study)

(nasal bioavailability of, from emulsion, membrane adjuvants enhancement of)

RN 120729-15-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R,3S)-1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
AN
    1992:612970 CAPLUS Full-text
DN
    117:212970
TI
    Derivatives of amino acids as inhibitors of renin, methods for their
    preparation, medicaments containing them and their use
    Henning, Rainer; Urbach, Hansjoerg; Ruppert, Dieter; Linz, Wolfgang
IN
PA
    Hoechst A.-G., Germany
SO
    Eur. Pat. Appl., 61 pp.
    CODEN: EPXXDW
DT
    Patent
LΑ
    English
FAN.CNT 2
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO.
    EP 483403
                     A1
                           19920506
                                          EP 1990-120882
                                                           19901031
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
    AU 9187309
                      A1
                           19920526
                                         AU 1991-87309
                                                           19911023
PRAI EP 1990-120882
                           19901031
    WO 1991-EP2011
                           19911023
    MARPAT 117:212970
OS
GΙ
```

ANSWER 21 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ΑB Acyl amino acid amides R1XYCHR2CONR4CHR3COT [R1 = nitrogen-containing ring radicals I and II [RA and RB = H, C1-C21-alkyl, (un) substituted C3-20-cycloalkyl, (un)substituted C4-20-cycloalkylalkyl, (un)substituted C6-12-aryl, (un)substituted C6-12-aryl-C1-20-alkyl, etc.; RARBN = 4-8membered heterocyclic ring; RA may be defined as above and RB = C1-4alkylamino, di(C1-4-alkyl)amino, C1-4-alkoxy, etc.; RF has same meaning as RA and RB; RG = H, C1-8-alkyl, C3-8-cycloalkyl, (un) substituted C6-12-aryl, etc.; RC, RD, and RE = H, C1-6-alkyl; RDRE = C1-4-alkylene; h and i = 0, 1, 2, 3; k and l = 1, 2, 3, 4; z = C1-6-alkylene]; R2 = H, C1-10-alkyl, C6-12-aryl, C6-12-aryl-C1-4-alkyl, hetaryl, etc.; R3 = amino acid side chain; R4 = H, C1-6-alkyl; X = CO, CS, SO2, SO; Y = O, S, (CH2)q(CRHRL)r (q = 0. 1, 2, 3; r = 0, 1, 2; RH and RL = H, C1-6alkyl); T = mimic of Leu-Val cleavage site of angiotensinogen] were prepared as renin inhibitors. Thus, propionic acid derivative III (Boc = Me3CO2C) was coupled with histidine amide IV by DCC/1hydroxybenzotriazole in the presence of N-ethylmorpholine in DMF to give the corresponding Nα-acyl derivative, which was Boc-deblocked by CF3CO2H in CH2Cl2 to give histidine amide V.

IT 144168-09-2P

L4

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and deblocking of)

RN 144168-09-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[R*(R*)],2S*,3R*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT143117-34-4P 143117-36-6P 143117-38-8P 143117-40-2P 143117-42-4P 143117-44-6P 143117-46-8P 143117-48-0P 143117-50-4P 143169-13-5P 143169-17-9P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor) RN143117-34-4 CAPLUS CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2,3dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1R- $[1R^*[R^*(R^*)], 2S^*, 3R^*]$, monoacetate (salt) (9CI) (CA INDEX NAME) CM 1 CRN 143117-33-3 C35 H54 N6 O6 CMF

CRN 64-19-7 CMF C2 H4 O2

RN 143117-36-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-(3-

ethyl-2-oxo-5-oxazolidinyl)-2-hydroxyethyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,
[5S-[5R*[1R*[R*(R*)],2S*]]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-35-5

CMF C35 H51 N7 O7

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 143117-38-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-2-(3-methoxy-2-oxo-5-oxazolidinyl)ethyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[5S-[5R*[1R*[R*(R*)],2S*]]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-37-7 CMF C34 H49 N7 O8

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

но-с-снз

RN 143117-40-2 CAPLUS

CN L-lyxo-Heptonic acid, 6-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-

oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-7-cyclohexyl-2,3,6,7-tetradeoxy-2,2-dimethyl-, γ -lactone, [S-(R*,R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-39-9 CMF C36 H52 N6 O7

CRN 64-19-7 CMF C2 H4 O2

O HO-C-CH3

RN 143117-42-4 CAPLUS

CN L-Arabinitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-

1,2,5-trideoxy-5-(4-morpholinyl)-, $[S-(R^*,R^*)]$ -, diacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-41-3 CMF C36 H55 N7 O7

CRN 64-19-7 CMF C2 H4 O2

RN 143117-44-6 CAPLUS

CN L-Arabinitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-

1,2,5-trideoxy-5-[[[(1-methylethyl)amino]carbonyl]amino]-, [S-(R*,R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-43-5 CMF C36 H56 N8 O7

CM 2

CRN 64-19-7 CMF C2 H4 O2

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143117-46-8 CAPLUS
RN
                                      L-altro-Heptitol, \ 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piperidinyl)carbonyl]oxy]-1-[(4-amino-1-piper
CN
oxo-3-
                                      phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-
cyclohexyl-
                                      1,2,5,6-tetradeoxy-6-methyl-, [S-(R^*,R^*)]-, monoacetate (salt) (9CI)
 (CA
                                      INDEX NAME)
                                      CM
                                                                             1
                                                                            143117-45-7
                                      CRN
                                                                          C35 H54 N6 O7
                                      CMF
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CRN 64-19-7 CMF C2 H4 O2

о но_С_.Снз

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RN 143117-48-0 CAPLUS
CN D-galacto-Heptitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-
3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-4,7-
anhydro-
1-cyclohexyl-1,2,5,6-tetradeoxy-6-methyl-, [S-(R*,R*)]-, monoacetate
(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-47-9
```

CRN 64-19-7 CMF C2 H4 O2

RN 143117-50-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[4-[(butylamino)carbonyl]-1-

(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143117-49-1 CMF C40 H63 N7 O6

CRN 64-19-7 CMF C2 H4 O2

RN 143169-13-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-(1-methylethyl)-13,13-dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia-3,6,12-triazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8S*,10R*)]-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143169-12-4 CMF C39 H63 N7 O7 S

```
CM 2
```

CRN 64-19-7 CMF C2 H4 O2

CRN

CMF

143169-16-8 C35 H54 N6 O7

RN 143169-17-9 CAPLUS
CN D-galacto-Heptitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1cyclohexyl1,2,5,6-tetradeoxy-6-methyl-, [S-(R*,R*)]-, monoacetate (salt) (9CI)
(CA
INDEX NAME)

CM 1

CM 2

CRN 64-19-7 CMF C2 H4 O2

O || HO_C_CH3

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L4 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 1992:572067 CAPLUS Full-text

DN 117:172067

TI Renin inhibitors containing new P1-P1' dipeptide mimetics with heterocycles in P1'

AU Raddatz, Peter; Jonczyk, Alfred; Minck, Klaus Otto; Rippmann, Friedrich; Schittenhelm, Christine; Schmitges, Claus Jochen

CS Preclin. Pharm. Res., E. Merck Darmstadt, Darmstadt, D-6100, Germany

SO Journal of Medicinal Chemistry (1992), 35(19), 3525-36 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

GΙ

A series of renin inhibitors containing new P1-P1' dipeptide mimetics AΒ are presented. The P1-P1' mimetics were obtained from 4-(cyclohexylmethyl)-5- (mesyloxyalkyl)-2,2-dimethyloxazolidines I (Boc = Me3CO2C; n = 1-3) by nucleophilic substitution of the mesylate groups with sodium salts of mercapto- and hydroxyheterocycles. Removal of the protecting groups and stepwise acylations with amino acid derivs. provided renin inhibitors with a length of a tripeptide. Replacement of P2 His by other amino acids maintained or enhanced renin inhibitory potency. By alteration of P3 Phe, compds. with IC50 values in the nanomolar range and stability against chymotrypsin were obtained. Finally, the effect of the C-terminal heterocycle on the renin inhibition was studied. Compound II was examined in vivo for its hypotensive effects. In salt-depleted cynomolgus monkeys, II inhibited plasma renin activity and lowered blood pressure after oral administration of a dose of 10 mg/kg.

IT 139470-20-5P 139470-22-7P 139470-24-9P

139470-26-1P 139470-30-7P 143122-44-5P

143122-46-7P 143122-48-9P 143122-50-3P

143122-52-5P 143122-54-7P 143122-56-9P

143122-58-1P 143122-60-5P 143122-62-7P

143142-39-6P 143142-41-0P 143169-38-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and renin, cathepsin D, and pepsin inhibitory activities

```
of)
RN 139470-20-5 CAPLUS
CN L-threo-Pentitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-
phenylpropyl]amino]-1-oxopentyl]amino]-1-cyclohexyl-1,2,4-trideoxy-5-S-

Pyridinyl-5-thio-, [S-(R*,R*)]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-19-2
CMF C36 H53 N5 O5 S
```

CM 2

CRN 76-05-1

CMF C2 H F3 02

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-24-9 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4-

trideoxy-5-S-4-pyridinyl-5-thio-, $[S-(R^*,S^*)]$ -, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-23-8 CMF C35 H51 N5 O5 S2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-26-1 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4-

trideoxy-5-S-2-pyrimidinyl-5-thio-, [S-(R*,S*)]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-25-0

CMF C34 H50 N6 O5 S2

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4-

trideoxy-5-S-(1-methyl-1H-tetrazol-5-yl)-5-thio-, $[S-(R^*,S^*)]$ -, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-29-4 CMF C32 H50 N8 O5 S2

$$\begin{array}{c} \text{OH} & \text{OCH}_2-\text{SMe} & \text{CH}_2-\text{Ph} \\ \text{N} & \text{S-CH}_2-\text{CH}_2-\text{CH-CH-NH-C-CH-NH-C-CH-O-C-N} \\ \text{Ne} \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-44-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-pyridinylthio)butyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-43-4 CMF C37 H55 N5 O5 S

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-46-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-pyridinylthio)butyl]amino]carbonyl]pentyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]-, bis(trifluoroacetate)

(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-45-6 CMF C37 H55 N5 O5 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-48-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[1-[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-pyridinylthio)butyl]amino]carbonyl]-3(methylthio)propyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-47-8 CMF C36 H53 N5 O5 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-50-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-pyridinylthio)butyl]amino]-1-methyl-2-oxoethyl]amino]-2-oxo-1-

(phenylmethyl)ethyl ester, $[1S-[1R^*[R^*(R^*)],2R^*]]-$, bis(trifluoroacetate)

(salt) (9CI) (CA INDEX NAME)

CRN 143122-49-0 CMF C34 H49 N5 O5 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-52-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-[(5-methyl-1,3,4-thiadiazol-2-yl)thio]butyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2R*]]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-51-4 CMF C33 H50 N6 O5 S3

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-54-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-[[5-(hydroxymethyl)-1-methyl-1H-imidazol-2-

yl]thio]butyl]amino]-

1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethylester, [1S-[1R*[S*(R*)],2R*]]-, bis(trifluoroacetate) (salt) (9CI) (CAINDEX NAME)

CM 1

CRN 143122-53-6 CMF C35 H54 N6 O6 S2

PAGE 1-A

HO_CH2
$$\stackrel{\text{Me}}{\underset{\text{N}}{\bigvee}}$$
 S_CH2_CH2_CH_CH_NH_C_CH_NH_C_CH_NH_C_CH_O_C

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-56-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(2-pyridinylthio)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-55-8 CMF C34 H49 N5 O5 S2

oh ch2 o ch2-sMe ch2-ph
$$s$$
-ch2-ch-ch-nh-c-ch-o-c- N

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-58-1 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1H-1,2,4-triazol-3-ylthio)propyl]amino]-1[(methylthio)methyl]2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-57-0 CMF C31 H47 N7 O5 S2

$$\begin{array}{c} \text{OH} & \text{O } \text{CH}_2\text{--}\text{SMe} & \text{O} \\ \text{N} & \text{S--}\text{CH}_2\text{--}\text{CH--}\text{CH--}\text{NH--}\text{C--}\text{CH--}\text{NH--}\text{C--}\text{CH--}\text{O--}\text{C--}\text{N} \\ \text{CH}_2 & \text{CH}_2\text{--}\text{Ph} \\ \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CM 1

CRN 143122-59-2 CMF C34 H49 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143122-62-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(4-oxo-1(4H)-pyridinyl)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-

[1R*[S*(R*)],2R*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143122-61-6 CMF C34 H49 N5 O6 S

CM . 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143142-39-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-4-(2-thiazolylthio)butyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2R*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143142-38-5

CMF C33 H49 N5 O5 S3

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(2-oxo-1(2H)-pyridinyl)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2R*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143142-40-9 CMF C34 H49 N5 O6 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 143169-38-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(2-pyridinyloxy)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 143169-37-3 CMF C34 H49 N5 O6 S

CRN 76-05-1 CMF C2 H F3 O2

IT 139469-90-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, deblocking, proteolytic stability, and renin inhibitory activity of)

RN 139469-90-2 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-5-S-2-pyridinyl-5-thio-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 143169-36-2P

1,2,4-trideoxy-5-S-2-pyridinyl-5-thio-, [S-(R*,R*)]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-17-0 CMF C37 H51 N7 O5 S

CRN 76-05-1 CMF C2 H F3 O2

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L4 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:518346 CAPLUS <u>Full-text</u>

DN 117:118346

TI Oral delivery of a renin inhibitor compound using emulsion formulations AU Kararli, Tugrul T.; Needham, Thomas E.; Griffin, Marty; Schoenhard,
```

Ferro, Leonard J.; Alcorn, Lisa G. D. Searle Res. Dev., Skokie, IL, 60077, USA Pharmaceutical Research (1992), 9(7), 888-93

SO Pharmaceutical Research (1992), CODEN: PHREEB; ISSN: 0724-8741

DT Journal LA English

GΙ

CS

Grant;

AB The oral delivery of a new renin inhibitor (I), was studied in the in vivo rat model using emulsion formulations. The components of the emulsion formulations were chosen based on their proposed effects on membrane structure, membrane fluidity, and solute transport. percent absolute bioavailability (%AB) of I was increased from 0.3% (water suspension) to 5.1% when long-chain unsatd. fatty acid (oleic acid, linoleic acid, etc.) - and mono- and diglyceride (monoolein, dilaurin, etc.)-containing emulsion formulations were used. Considering very high first-pass liver extraction of the compound (80%), it is suggested that emulsion formulations increased the intestinal transport of the compound significantly. The solubility of I in aqueous media with and without bile salt (20mM) was found to be low (.apprx.1 μ g/mL). Incubation in 0.01N HCl did not affect the particle size of the emulsion. The titration of oleic acid/monoolein emulsion in a pH 6.5 medium with a mixed bile salt system indicated reduction in the particle size of the emulsion. Drug precipitation was observed above 30mM bile salt concns. No drug crystals could be detected in the intestinal contents of the rats when emulsion formulations were ingested. These results suggest that in the intestine of the animals, the particle size of the emulsions is reduced in the presence of bile fluid while the drug resides primarily in the oil phase. The mechanism of enhanced transport of I from the emulsion formulations is discussed along with the possibility of cotransport from the drug and oil. Emulsion formulations can be a potential delivery form for low-bioavailable lipid-soluble drugs.

IT 120729-15-9

RL: BIOL (Biological study)

(oral delivery of, as renin inhibitor, emulsion for)

RN 120729-15-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R,3S)-1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

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ANSWER 24 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
    1992:490797 CAPLUS Full-text
AN
DN
     117:90797
ΤI
     Preparation of peptides containing glycolic acid derivatives as renin
     inhibitors
     Raddatz, Peter Dr; Schmitges, Claus J.; Minck, Klaus Otto
IN
PA
    Merck Patent G.m.b.H., Germany
SO
     Eur. Pat. Appl., 18 pp.
     CODEN: EPXXDW
DT
     Patent
LΑ
    German
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                         APPLICATION NO. DATE
     _____
                    ----
PI
    EP 446751
                A1 19910918
                                        EP 1991-103213 19910304
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
    DE 4008403
                    A1 19910919
                                       DE 1990-4008403 19900316
    CA 2038282
                     AA
                          19910917
                                         CA 1991-2038282 19910314
    AU 9172906
                    A1 19910919
                                         AU 1991-72906
                                                         19910314
    AU 650442
                    B2 19940623
    HU 59939
                    A2 19920728
                                         HU 1991-846
                                                         19910314
    HU 207508
                    B 19930428
     ZA 9101951
                    A
                          19911224
                                         ZA 1991-1951
                                                          19910315
                    A2 19930209
     JP 05032609
                                         JP 1991-154154
                                                          19910315
                                         US 1991-670677
    US 5147857
                     A
                          19920915
                                                          19910318
PRAI DE 1990-4008403
                           19900316
OS
    MARPAT 117:90797
AB
     X-O-CR1R2-CO-Y-NR3-CHR4-C(:R5)-CH2CR6R7-Z [I; X = H, aryl, aralkyl,
     heterocyclyl, acyl, etc.; Y = 0 or 1 amino acid residue, e.g., Ala, \beta-
     Ala, Arg; Z = cyano, (substituted) aminomethyl, (substituted)
     ureidomethyl, etc.; R1, R3, R6, R7 = H, aryl, aralkyl, heterocyclyl,
     acyl, etc.; R2, R4 = H, aryl, aralkyl, heterocyclyl, etc.; R5 = (H, OH),
     (H, NH2), O] and their salts, renin inhibitors and therefore useful for
     treating hypertension (no data), were prepared (4S,5S)-BOC-His(BOM)-
     NHCHQ1CH(OH)(CH2)3NHCONHEt [BOM = benzyloxymethyl, Q1 =
     cyclohexylmethyl] was deprotected and condensed with QCO2Pla-H [Q = 4-
     (tert- butoxycarbonyl)piperidino; Pla = OCH(CH2Ph)CO] (preparation
     given) to give (4S,5S)-QCO2Pla-His(BOM)-NHCHQ1CH(OH)(CH2)3NHCONHEt,
     which was hydrogenolyzed over Pd/C in EtOH to give (4S,5S)-QCO2Pla-His-
     NHCHQ1CH(OH)(CH2)3NHCONHEt. Pharmaceutical tablets, capsules, etc.,
     containing I were formulated.
IT
    138893-61-5P 138893-62-6P 138893-63-7P
    138893-64-8P 138893-65-9P 138893-66-0P
    138893-67-1P 138893-68-2P 138893-69-3P
    138893-70-6P 138893-71-7P 138893-73-9P
    138893-76-2P 138893-77-3P 138893-78-4P
    138893-80-8P 138893-83-1P 138893-84-2P
    138893-85-3P 138893-86-4P 138893-88-6P
    138893-89-7P 138893-90-0P 138893-92-2P
    138909-06-5P
    RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
    study, unclassified); SPN (Synthetic preparation); BIOL (Biological
    study); PREP (Preparation)
       (preparation of, as renin inhibitor)
RN
    138893-61-5 CAPLUS
CN
    1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-
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(1H-imidazol-4-ylmethyl)-10-(1-methylethyl)-13,13-dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia-3,6,12-triazahexadec-1-yl ester (9CI) (CA INDEX NAME)

RN 138893-62-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester (9CI) (CA INDEX NAME)

RN 138893-63-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-[(methylthio)methyl]-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester (9CI) (CA INDEX NAME)

RN 138893-64-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-,
7-(cyclohexylmethyl)-8-hydroxy-2,5,13-trioxo-4-[[1[(phenylmethoxy)methyl]1H-imidazol-4-yl]methyl]-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl
ester, [1S-(1R*,4R*,7R*,8R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-65-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-,
2-[[2-[[5-[(aminocarbonyl)amino]-1-(cyclohexylmethyl)-2hydroxypentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo
1(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX

NAME)

PAGE 1-A



RN 138893-66-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-15-methyl-2,5,13-

trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, $[1S-(1R^*,4R^*,7R^*,8R^*)]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A



RN 138893-67-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[5-[(aminocarbonyl)amino]-1-(cyclohexylmethyl)-2-hydroxy-4-methylpentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-

1- (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-68-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-methyl-2,5,13-

 $\begin{array}{lll} \text{trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester,} \\ [1S-(1R^*,4R^*,7R^*,8R^*,10S^*)]-& (9CI) & (CA INDEX NAME) \end{array}$

RN 138893-69-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10,15-dimethyl-

2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*,10S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

RN 138893-70-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-,

2-[[2-[[4-[[(aminocarbonyl)amino]methyl]-1-(cyclohexylmethyl)-2-hydroxy-5methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*,4R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-71-7 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-,
7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-(1methylethyl)-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1yl
ester, [1S-(1R*,4R*,7R*,8R*,10R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-73-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-10,15-dimethyl-2,5,13-trioxo-4-[[1-[(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]-1-(phenylmethyl)-

3,6,12,14-tetraazahexadec-1-yl ester, $[1S-(1R^*,4R^*,7R^*,8R^*,10S^*)]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-76-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-10-(1-methylethyl)-2,5,13-trioxo-4-[[1-[(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*,10R*)]- (9CI) (CA INDEX NAME)

RN 138893-77-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-(1-methylethyl)-13,13-dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia-3,6,12-triazahexadec-1-yl ester, [1S-(1R*,4R*,6R*,8R*,10R*)]- (9CI) (CA INDEX NAME)

RN 138893-78-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-10-methyl-13,13-

dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia-3,6,12-triazahexadec-1-yl ester, $[1S-(1R^*,4R^*,7R^*,8R^*,10S^*)]-(9CI)$ (CA INDEX NAME)

— OBu−t

RN 138893-80-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-10-methyl-13,13-dioxido-2,5-dioxo-4-[[1-[(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]-1-(phenylmethyl)-13-thia-

3,6,12-triazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*,10S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-83-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-[(3-methyl-1-oxobutyl)amino]pentyl]amino]-2-oxo-1-[[1-[(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

RN 138893-84-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-4-[[1-(2,4-dinitrophenyl)-1H-imidazol-4-yl]methyl]-8hydroxy-10-methyl-13,13-dioxido-2,5-dioxo-1-(phenylmethyl)-13-thia3,6,12triazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*,10S*)]- (9CI) (CA INDEX NAME)

RN 138893-85-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5[[(phenylmethoxy)carbonyl]amino]p
entyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

```
RN 138893-86-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-,
2-[[2-[[5-amino-1-(cyclohexylmethyl)-2-hydroxypentyl]amino]-1-(1H-
imidazol-
4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)
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RN 138893-88-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-[(methylthio)methyl]-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-89-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 7-(cyclohexylmethyl)-8-hydroxy-4[(methylthio)methyl]-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14tetraazahexadec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

RN 138893-90-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-10-(1-methylethyl)-4[(methylthio)methyl]-

2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, [1S-(1R*,4S*,7R*,8R*,10R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-92-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(2-methylpropyl)-2,5,13-trioxo-1-(phenylmethyl)-3,6,12,14-tetraazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*)]- (9CI) (CA INDEX NAME)

PAGE 1-B

- OBu-t

RN 138909-06-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-[(3-methyl-1-oxobutyl)amino]pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-

2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

IT 138893-97-7 138893-99-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, in preparation of renin inhibitors)

RN 138893-97-7 CAPLUS

CN L-Cysteine, N-[2-[[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]-S-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138893-99-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[1-[[[5-amino-1-(cyclohexylmethyl)-2-hydroxypentyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

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L4 ANSWER 25 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1992:449261 CAPLUS Full-text

DN 117:49261

TI Preparation of peptides having endothelin antagonist activity and pharmaceutical compositions comprising them.

IN Hemmi, Keiji; Neya, Masahiro; Fukami, Naoki; Hashimoto, Masashi; Tanaka, Hirokazu; Kayakiri, Natsuko

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO Eur. Pat. Appl., 179 pp. CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

GΙ

FAN.	CNT 3				2.55
	PATENT NO.		DATE	APPLICATION NO.	DATE
PI	EP 457195	A2	19911121	EP 1991-107554	19910509
	EP 457195				
	EP 457195				
	R: AT, BE,	CH, DE	, DK, ES, FI	R, GB, GR, IT, LI, LU	, NL, SE
	ZA 9103417	Α	19920226	ZA 1991-3417	19910506
	US 5284828	Α	19940208	us 1991-696701	19910507
	AU 9176446	A1	19911114	AU 1991-76446	19910509
	AU 644648	B2	19931216	AT 1991-107554	
	AT 165100	E	19980515	AT 1991-107554	19910509
	NO 9101854	Α	19911115	NO 1991-1854	19910513
	FI 9102328	Α		FI 1991-2328	
	CA 2042442	AA		CA 1991-2042442	
	CN 1057269	Α	19911225	CN 1991-103919	
	RU 2092491		19971010	RU 1991-4895608	19910513
	HU 57233	A2	19911128	ни 1991-1619	19910514
•	JP 04244097	A2		JP 1991-206614	
	US 5430022	Α	19950704	us 1993-86094	19930706
	US 5656604	Α	19970812	US 1995-422944	19950417
PRAI	GB 1990-10740		19900514		
	GB 1990-26254		19901203		
	GB 1991-4064		19910227		
	US 1991-696701		19910507		
	US 1991-753997				
	US 1992-845056				
	US 1993-86094		19930706		
os	MARPAT 117:4926	51			

AB The title compds. [I; R1 = H, acyl; R2 = alkyl, aralkyl; R3 = (substituted) heterocyclylalkyl, (substituted) aralkyl; R4, R6 = H,

(substituted) alkyl; R5 = (protected) carboxy, (protected) carboxyalkyl; R7 = H, alkyl; A = O, NH, alkylimino, alkylene; with provisos] were prepared A mixture of Q-Leu-OH [Q = PhCH2CO], H-D-Trp(Me)-D-Phe-OMe.HCl, and HOBt in DMF was treated with WSCD under ice-bath cooling for 4.5 h, the mixture was concentrated and a solution of the residue in EtOAc was successively washed with 0.5 N HCl, saturated aqueous NaHCO3, and brine to give Q-Leu-D-Trp(Me)-D-Phe-OMe. In an assay using porcine aorta tissue Q1-L-Leu-D-Trp(Me)-D-Pya-OEt [Q1 = cyclohexylcarbamoyl, Pya = 3-(2-pyridyl)alanine residue; preparation given] had an IC50 of 2.3+10-9 M against 125I-endothelin.

IT 142376-05-4P 142376-07-6P 142376-75-8P 142376-77-0P 142376-78-1P 142379-23-5P 142379-25-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as endothelin antagonist)

RN 142376-05-4 CAPLUS

CN D-Alanine, N-[1-methyl-N-[4-methyl-1-oxo-2-[(1-piperidinylcarbonyl)oxy]pentyl]-D-tryptophyl]-3-(2-pyridinyl)-, ethyl ester, (S)- (9CI) (CA INDEX NAME)

RN 142376-07-6 CAPLUS

CN D-Alanine, N-[N-[2-[[(3,4-dihydro-2(1H)-isoquinolinyl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, ethyl ester,

(S)- (9CI) (CA INDEX NAME)

RN 142376-75-8 CAPLUS
CN D-Alanine, N-[1-methyl-N-[4-methyl-1-oxo-2-[(1-piperidinylcarbonyl)oxy]pentyl]-D-tryptophyl]-3-(2-pyridinyl)-,
monosodium
salt, (S)- (9CI) (CA INDEX NAME)

Na

RN 142376-77-0 CAPLUS
CN D-Alanine, N-[N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, monosodium salt,

(S)(9CI) (CA INDEX NAME)

Na

RN 142376-78-1 CAPLUS

CN D-Alanine, N-[N-[2-[[(3,4-dihydro-2(1H)-isoquinolinyl)carbonyl]oxy]-4-methyl-1-oxopentyl]-1-methyl-D-tryptophyl]-3-(2-pyridinyl)-, monosodium salt, (S)- (9CI) (CA INDEX NAME)

Na

RN 142379-23-5 CAPLUS

1-

CN D-Alaninamide, N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl-

oxopentyl]-1-methyl-D-tryptophyl-3-(2-pyridinyl)-, (S)- (9CI) (CA INDEX NAME)

RN 142379-25-7 CAPLUS
CN D-Alaninamide, N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl1oxopentyl]-1-methyl-D-tryptophyl-N-methyl-3-(2-pyridinyl)-, (S)- (9CI)
(CA INDEX NAME)

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ANSWER 26 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
AN
     1992:256053 CAPLUS Full-text
DN
     116:256053
     Preparation of endothelin antagonistic peptide derivatives
TI
     Ishikawa, Kiyofumi; Fukami, Takehiro; Hayama, Takashi; Niiyama, Kenji;
IN
     Nagase, Toshio; Mase, Toshiaki; Fujita, Kagari; Ihara, Masaki; Ikemoto,
     Fumihiko; Yano, Mitsuo
     Banyu Pharmaceutical Co., Ltd., Japan
PA
     Eur. Pat. Appl., 121 pp.
SO
     CODEN: EPXXDW
     Patent
\mathbf{D}\mathbf{T}
     English
LΑ
FAN.CNT 3
                                             APPLICATION NO.
                                                               DATE
                       KIND
     PATENT NO.
                        A2
                              19911211
                                             EP 1991-109313
                                                               19910606
PI
     EP 460679
     EP 460679
                        А3
                              19921119
                        B1
                              19981028
     EP 460679
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
                                                               19910603
                              19911208
                                             CA 1991-2043741
     CA 2043741
                        AΑ
                              20030401
     CA 2043741
                        С
                                             JP 1991-160023
                                                                19910603
     JP 05178891
                        A2
                              19930720
     JP 3127488
                        B2
                              20010122
                              19911212
                                             AU 1991-78182
                                                                19910605
     AU 9178182
                        Α1
                              19930107
     AU 632695
                        B2
                                             AT 1991-109313
                                                                19910606
     AT 172741
                        E
                              19981115
                                             US 1994-213829
                                                                19940314
     US 5470833
                        Α
                              19951128
                                             US 1995-494818
                                                                19950626
     US 5691315
                        Α
                              19971125
                              19900607
PRAI JP 1990-149105
                        Α
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US 1994-213829 OS MARPAT 116:256053

US 1991-712095

US 1992-884189

В3

В1

А3

19910607

19920518

19940314

GΙ

$$Q^{2} = R^{61} R^{71} \qquad Q^{3} = Y \qquad Q^{4} = X^{2} \qquad Y$$

$$Me$$

$$BOC-NH$$

$$Q^{1} R^{16}N$$

$$R^{18} R^{18}$$

$$R^{18} R^{17} Q^{4} = Y$$

$$R^{16}N$$

$$R^{18} R^{18} R^{17} Q^{18} Q^{18}$$

Title compds. [I; Al = (cyclo)alkylcarbonyl, aryl, arylalkyl, 1,3-AΒ dithiol-2-ylidenemethyl, alkoxycarbonyl, phenoxycarbonyl, (thio) carbamoyl, etc.; A1B = Q1; R16 = H, (cyclo) alkyl; R17, R18 = H, alkyl; B = O, NH, NMe; R3 = alkyl; R4 = H, Me; R5 = (substituted) 3indolylmethyl, (2,3-dihydro-2-oxo-3-indolyl)methyl, phosphonyl(alkyl), PhCH2, 3-benzothienylmethyl, etc.; X2 = 0, S; A2 = Q2, Q3, Q4, etc.; Y =sulfo, phosphono, CO2H, alkoxycarbonyl, benzyloxycarbonyl, carbamoyl; R61 = H, alkyl; R71 = H, (substituted) alkyl; R61R71 = CH2; Z = CH, N; x= 1-3], were prepared BOC-Leu-OH was coupled with H-D-Trp-OMe.HCl using Et3N/hydroxybenzotriazole/1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride in CH2Cl2 and the product was treated with N2H4 in DMF to give BOC-Leu-D-Trp-NHNH2. The latter in DMF at -60° was treated with HCl/dioxane, isoamyl nitrite, and tetrabutylammonium 3R-aminobutanoate to give title compound II. I inhibited 125I-endothelin binding to porcine aortal prepns. by 20-90%, and effectively inhibited endothelininduced contraction of porcine coronary artery and guinea pig trachea.

IT 141595-68-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as endothelin antagonist)

RN 141595-68-8 CAPLUS

CN D-Tryptophan, N-[N-[2-[[(hexahydro-1H-azepin-1-yl)carbonyl]oxy]-4-methyl-1-

oxopentyl]-D-tryptophyl]-, (S)- (9CI) (CA INDEX NAME)

```
1992:152416 CAPLUS Full-text
AN
     116:152416
DN
     Preparation of dipeptide derivatives as renin inhibitors
ΤI
     Raddatz, Peter; Minck, Klaus Otto; Schmitges, Claus J.
IN
     Merck Patent G.m.b.H., Germany
PA
     Eur. Pat. Appl., 22 pp.
SO
     CODEN: EPXXDW
DT
     Patent
LΑ
     German
FAN.CNT 1
                      KIND
                            DATE
                                            APPLICATION NO.
                                                             DATE
     PATENT NO.
                       A2
                             19920108
                                            EP 1991-110259
                                                             19910621
PI ·
     EP 464517
                       A3
                             19930407
     EP 464517
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
                                            DE 1990-4021512 19900705
     DE 4021512
                       A1
                            19920116
     CA 2046112
                       AΑ
                             19920106
                                            CA 1991-2046112
                                                             19910703
     AU 9180217
                       A1
                             19920109
                                            AU 1991-80217
                                                             19910704
     ZA 9105243
                       Α
                            19920429
                                            ZA 1991-5243
                                                             19910705
                                            JP 1991-259947
                                                             19910705
                       A2
                            19921028
     JP 04305562
                                            HU 1991-2282
                                                             19910705
     HU 61321
                       A2
                             19921228
PRAI DE 1990-4021512
                             19900705
     MARPAT 116:152416
GΙ
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ANSWER 27 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

L4

(Biological

AB Title compds. XWCR1R2COYNHCHR4CR5CH2(CR6R7)rS(O)tCH2COVR3 [I; X = R8, R80CmH2mCO, R8CmH2mO2C, etc.; W = O, NH, CH2, S; Y = O, Ala, Arg, Asn, etc.; V = O, NH; R1, R6, R7 = H, C1-8 alkyl; R2-R4, R8 = H, C1-8 alkyl, (substituted) Ph, (substituted) naphthyl, (substituted) 5- or 6-membered heterocyclyl, etc.; R5 = (H, OH), (H, NH2), O; m = 0-10; r = 0-3; t = 0-2] were prepared as renin inhibitors (no data). Thus, II was prepared by standard coupling methods. Formulations of I were prepared 139624-52-5P 139624-54-7P 139624-59-2P 139624-61-6P 139624-62-7P 139624-63-8P 139624-70-7P 139624-72-9P 139624-78-5P 139624-79-6P 139624-82-1P 139624-83-2P 139624-89-8P 139624-91-2P 139624-98-9P 139625-04-0P 139625-08-4P 139625-12-0P 139625-15-3P 139625-16-4P 139625-21-1P 139625-23-3P 139625-25-5P RL: BAC (Biological activity or effector, except adverse); BSU

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as renin inhibitor)

RN 139624-52-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-(1H-imidazol-4-ylmethyl)-15-methyl-2,5,12-

trioxo-1-(phenylmethyl)-10-thia-3,6,13-triazahexadec-1-yl ester, $[1S-(1R^*,4R^*,7R^*,8R^*)]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

RN 139624-54-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-15-methyl-4-[(methylthio)methyl]-2,5,12-trioxo-1-(phenylmethyl)-10-thia-3,6,13-triazahexadec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 139624-59-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-4-[(methylthio)methyl]-2,5,12-trioxo-1-(phenylmethyl)-13-oxa-10-thia-3,6-diazatetradec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]- (9CI) (CA INDEX NAME)

RN 139624-61-6 CAPLUS
CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-5-S-[2-[(2-methylpropyl)amino]-2-oxoethyl]-2-[[3-(methylthio)-2-[[2-[(4-morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]amino]-1-oxopropyl]amino]-5-

thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

RN 139624-62-7 CAPLUS
CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-[2-[(2-methylpropyl)amino]-2-oxoethyl]-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 139624-63-8 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-(2-methoxy-2-oxoethyl)-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

OH

MeO_C_CH2_s_CH2_CH2_CH

Mes_CH2_O CH2_Ph

CH2_CH_NH_C_CH_NH_C_CH_O_C

PAGE 1-B

__C_OBu-t

RN 139624-70-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-[(2-methoxy-2-

oxoethyl)sulfonyl]propyl]amino]-1-[(methylthio)methyl]-2-

oxoethyl]amino]-2-

oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2R*]]-(9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 139624-72-9 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4,5-tetradeoxy-2-[[2-[[2-[[4-[[(1,1-

dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-[(2-methoxy-2-oxoethyl)sulfonyl]-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

RN 139624-78-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-[[2-[(2-methylpropyl)amino]-2-oxoethyl]sulfonyl]propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-

oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2R*]]- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 139624-79-6 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4,5-tetradeoxy-5-[(2-methoxy-2-oxoethyl)sulfonyl]-2-[[3-(methylthio)-2-[[2-[(4-morpholinylcarbonyl)oxy]-1-

oxo-3-phenylpropyl]amino]-1-oxopropyl]amino]-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

RN 139624-82-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-

15-

INDEX

NAME)

Absolute stereochemistry.

RN 139624-83-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-

15-

methyl-4-[(methylthio)methyl]-2,5,12-trioxo-1-(phenylmethyl)-10-thia-3,6,13-triazahexadec-1-yl ester, [1S-(1R*,4S*,7R*,8R*)]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139624-82-1

CMF C35 H57 N5 O6 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

F-C-CO2H

RN 139624-89-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4- (1H-imidazol-4-ylmethyl)-15-methyl-2,5,12-trioxo-1-(phenylmethyl)-10- thia-

3,6,13-triazahexadec-1-yl ester, [1S-(1R*,4R*,7R*,8R*)]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139624-88-7 CMF C37 H57 N7 O6 S

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

F_C_CO2H

RN 139624-91-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 7-(cyclohexylmethyl)-8-hydroxy-4-[(methylthio)methyl]-2,5,12-trioxo-1-(phenylmethyl)-13-oxa-10-thia-3,6-diazatetradec-1-yl ester, monohydrochloride, [1S-(1R*,4S*,7R*,8R*)]-(9CI)

(CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 139624-98-9 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1.2.4-

trideoxy-5-S-[2-[(2-methylpropyl)amino]-2-oxoethyl]-5-thio-, [S- (R^*,S^*)]-,

mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139624-97-8

CMF C36 H59 N5 O6 S2

PAGE 1-B

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139625-04-0 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4-

trideoxy-5-S-(2-methoxy-2-oxoethyl)-5-thio-, $[S-(R^*,S^*)]$ -, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139625-03-9 CMF C33 H52 N4 O7 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-[(2-methoxy-2-oxoethyl)sulfonyl]propyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2R*]]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139625-07-3 CMF C32 H50 N4 O9 S2

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139625-12-0 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4,5-

 $\label{tetradeoxy-5-[(2-methoxy-2-oxoethyl)sulfonyl]-, [S-(R*,S*)]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)$

CM 1

CRN 139625-11-9 CMF C33 H52 N4 O9 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139625-15-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-[[2-[(2-methylpropyl)amino]-2-oxoethyl]sulfonyl]propyl]amino]-1-

[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethylester,

[1S-[1R*[S*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 139625-16-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-[[2-[(2-methylpropyl)amino]-2-oxoethyl]sulfonyl]propyl]amino]-

1-

CM 1

CRN 139625-15-3 CMF C35 H57 N5 O8 S2

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139625-21-1 CAPLUS

CN L-threo-Pentitol, 5-S-(carboxymethyl)-1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-

 $1-oxo-3-phenylpropyl] amino] -3-(methylthio)-1-oxopropyl] amino] -5-thio-, \\ [S-(R^*,S^*)]-(9CI) (CA INDEX NAME)$

CM 1

CRN 139625-22-2 CMF C32 H50 N4 O7 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139625-25-5 CAPLUS

CN L-threo-Pentitol, 5-S-(carboxymethyl)-1-cyclohexyl-1,2,4-trideoxy-2-[[3-(methylthio)-2-[[2-[(4-morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]amino]-1-oxopropyl]amino]-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

IT 139625-39-1 139625-49-3

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of renin inhibitors)

RN 139625-39-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 7-(cyclohexylmethyl)-8-hydroxy-15-methyl-2,5,12-trioxo-4-[[1-[(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]-1-(phenylmethyl)-10-

thia-

3,6,13-triazahexadec-1-yl ester, $[1S-(1R^*,4R^*,7R^*,8R^*)]-(9CI)$ (CA INDEX

NAME)

Absolute stereochemistry.

RN 139625-49-3 CAPLUS

CN L-Cysteine, S-methyl-N-[2-[(4-morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]-, (S)- (9CI) (CA INDEX NAME)

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L4
     ANSWER 28 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
     1992:152399 CAPLUS Full-text
AN
DN
     116:152399
ΤI
     Preparation of peptide renin inhibitors
IN
     Hoover, Dennis J.; Lefker, Bruce A.; Rosati, Robert L.
PA
     Pfizer Inc., USA
SO
     Eur. Pat. Appl., 140 pp.
     CODEN: EPXXDW
DT
     Patent
LА
     English
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     PATENT NO.
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                                          APPLICATION NO.
                                                          DATE
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PRAI US 1990-467068
                           19900118
    EP 1991-300191
                           19910111
    MARPAT 116:152399
GI
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IT 138021-77-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for peptide renin inhibitors)

RN 138021-77-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. [I; Q = Q1, Q2, etc.; i = 2-4; l = 0-3; m, n = 0-2; p = 1,2; Y = CH, N; G = O, S; R10 = H, alkyl, phenylalkyl; R3 = (substituted) Ph, cycloalkyl, cycloalkylmethyl, naphthyl, PhCH2, thienyl; R4 = (substituted) alkyl, difluoromethylthioalkyl, 4-imidazolylmethyl, 4-thiazolylmethyl, alkoxyalkyl, alkylthioalkyl, alkenyl; R5 = thienyl, cycloalkenyl, 1,4-cyclohexadienyl, (substituted) alkyl, Ph, alkoxy; R6 = (substituted) alkylcarbonyl, alkoxycarbonyl, PhCH2CO, alkylthiomethyl, imidazolyl, thiazolyl, oxazolyl, etc.; D, E = H, alkyl; DE = atoms to complete a cyclopropyl, cyclobutyl, or cyclopentyl ring; Z = CH2, O, imino], were prepared as renin inhibitors. Thus, title compound II was prepared by reductive amination of the corresponding 4-piperidone derivative (U.S. Pat. 4,814,342) with Me2NH. I inhibited human renin with IC50's of <50 nM.

hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]](9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 137962-60-8P 137991-71-0P 137991-73-2P 137991-75-4P 137991-77-6P 137991-79-8P 137991-96-9P 137991-99-2P 137992-00-8P 137992-01-9P 137992-04-2P 138021-54-2P 138021-56-4P 138021-57-5P 138125-47-0P 138126-36-0P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor) RN 137962-60-8 CAPLUS CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl) -2-hydroxy-3-(1-methylethoxy) -3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

(CA INDEX NAME)

Absolute stereochemistry.

[1S-[1R*[S*(R*)],2S*]]-(9CI)

RN 137991-71-0 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dioxan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-70-9 CMF C33 H52 N4 O7 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-73-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithiolan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-72-1 CMF C32 H50 N4 O5 S3

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-75-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithian-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[S*(R*)],2S*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-74-3 CMF C33 H52 N4 O5 S3

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-77-6 CAPLUS

CN [1,4'-Bipiperidine]-1'-carboxylic acid, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*,3R*]]-, monomethanesulfonate (salt) (9CI) (CA

INDEX NAME)

CM 1

CRN 137991-76-5 CMF C38 H68 N4 O6 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-79-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(4-morpholinyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[S*(R*)],2S*,3R*]]-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 137991-78-7 CMF C37 H60 N4 O7 S

Absolute stereochemistry.

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 137991-96-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,
monohydrochloride, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 137991-99-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dioxan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137992-00-8 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithiolan-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

RN 137992-01-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-(1,3-dithian-2-yl)-2-hydroxyethyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137992-04-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]2oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

RN 138021-54-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(methylamino)-, 1-(cyclohexylmethyl)-2[[2[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino][(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
monohydrochloride, [1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HC1

RN 138021-56-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138021-57-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-oxo-, 1-(cyclohexylmethyl)-2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1[(methylthio)methyl]-2-oxoethyl]amino]-2-oxoethyl ester,
[1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

RN 138125-47-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(1-methylethoxy)-3-oxopropyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

monohydrochloride, [1S-[1R*[S*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HCl

RN 138126-36-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(dimethylamino)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethylester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

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ANSWER 29 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
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ΑN
     116:129645
DN
     Preparation of heterocyclylpeptides as resin inhibitors
TI
     Raddatz, Peter; Schmitges, Claus J.; Minck, Klaus-Otto
IN
     Merck Patent G.m.b.H., Germany
PA
     Ger. Offen., 18 pp.
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PRAI DE 1990-4014421
     MARPAT 116:129645
os
     XWCR1R2COYNR3CHR4CR5CH2(CR6R7)rZ-Het [X = R8, R8O(CH2)mCO, R8SO2,
AΒ
     R8(CH2)mOCO, etc.; W = O, NH, CH2, S; Y = O, amino acid residue; Z = O,
     S, SO, SO2; R1, R3, R6, R7 = H, alkyl; R5 = (H, OH), (H, NH2), O; R2,
     R4, R8 = H, alkyl, (substituted) aryl, arylalkyl, heterocyclyl,
     cycloalkyl, etc.; Het = (unsatd.) (benzene-fused) (substituted) 5- or 6-
     membered heterocyclyl; r = 0-3; m = 0-10], were prepared as renin
     inhibitors (no data). Thus, 3-tert-butoxycarbonyl-4-cyclohexylmethyl-5-
      (2-iodoethyl)-2,2- dimethyloxazolidine was condensed with 2-
     hydroxypyridine and the product was hydrolyzed to (4S)-amino-5-
     cyclohexyl-(3S)-hydroxypentyloxypyridine. This was condensed with
     Me3CSO2-Phe-His(BOM)-OH (BOM = benzyloxymethyl) followed by
     hydrogenolysis to give 2-[4(S)-tert-
     butylsulfonylphenylalanylhistidylamino-3(S)-hydroxy-5-
     cyclohexylpentyloxy]pyridine. Drug formulations were prepared
     containing various I.
     139470-35-2P
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, as intermediate for renin inhibitor)
     139470-35-2 CAPLUS
RN
     L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[4-[[4-[(1,1-[1])]]]]]
CN
     dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-
     phenylpropyl]amino]-3-[1-(2,4-dinitrophenyl)-1H-imidazol-4-yl]-1-
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oxopropyl]amino]-5-S-2-pyridinyl-5-thio-, [S-(R*,R*)]- (9CI) (CA INDEX

NAME)

PAGE 2-A

139469-90-2P 139469-93-5P 139469-98-0P 139469-99-1P 139470-00-1P 139470-01-2P 139470-02-3P 139470-03-4P 139470-08-9P 139470-18-1P 139470-20-5P 139470-21-6P 139470-22-7P 139470-24-9P 139470-26-1P 139470-28-3P 139470-30-7P RL: BAC (Biological activity or effector, except adverse); BSU study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor) RN 139469-90-2 CAPLUS L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-1])]]]]]] CN dimethylethoxy) carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-5-S-2pyridinyl-5-thio-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-1-oxopentyl]amino]-5-S-2-pyridinyl-5-thio-,
[S-(R*,R*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 139469-99-1 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-2-pyridinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 139470-00-1 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-4-pyridinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 139470-01-2 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-2-pyrimidinyl-5-

thio-, $[S-(R^*,S^*)]-(9CI)$ (CA INDEX NAME)

PAGE 1-A

RN 139470-02-3 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-thio-5-S-1H-1,2,4-

triazol-3-yl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 139470-03-4 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[2-[[2-[[4-[[(1,1-dimethylethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-5-S-(1-methyl-1H-tetrazol-5-yl)-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

O || __NH_C_OBu-t

RN 139470-08-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-3-(2-pyridinyloxy)propyl]amino]-1-[(methylthio)methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-

[1R*[S*(R*)],2R*]]-

, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-07-8 CMF C34 H49 N5 O6 S

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-18-1 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-

```
cyclohexyl-
    1,2,4-trideoxy-5-S-2-pyridinyl-5-thio-, [S-(R*,R*)]-,
    tris(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-17-0
CMF C37 H51 N7 O5 S
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CM 2 CRN 76-05-1

C2 H F3 O2

F-C-CO2H

```
RN 139470-20-5 CAPLUS
CN L-threo-Pentitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-
phenylpropyl]amino]-1-oxopentyl]amino]-1-cyclohexyl-1,2,4-trideoxy-5-S-
2-
pyridinyl-5-thio-, [S-(R*,R*)]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-19-2
CMF C36 H53 N5 O5 S
```

CRN · 76-05-1 CMF C2 H F3 O2

RN 139470-21-6 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4-

trideoxy-5-S-2-pyridinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

oh ch2 o ch2-sme ch2-ph oh-ch2-ch-ch-nh-c-ch-nh-c-ch-o-c-n
$$\stackrel{\rm NH}{=}$$

RN 139470-22-7 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4-

trideoxy-5-S-2-pyridinyl-5-thio-, [S-(R*,S*)]-, bis(trifluoroacetate)
(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-21-6 CMF C35 H51 N5 O5 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-24-9 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4-

trideoxy-5-S-4-pyridinyl-5-thio-, [S-(R*,S*)]-, bis(trifluoroacetate)
(salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-23-8 CMF C35 H51 N5 O5 S2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-26-1 CAPLUS

CN L-threo-Pentitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-

phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl-1,2,4-

trideoxy-5-S-2-pyrimidinyl-5-thio-, $[S-(R^*,S^*)]$ -, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1 ·

CRN 139470-25-0

CMF C34 H50 N6 O5 S2

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-28-3 CAPLUS
CN L-threo-Pentitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4trideoxy-5-thio-5-S-1H-1,2,4-triazol-3-yl-, [S-(R*,S*)]-,
bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 139470-27-2
CMF C32 H49 N7 O5 S2

$$\begin{array}{c} \text{OH} \\ \text{N} \\ \text{N} \\ \text{S-CH}{}_2 \\ \text{CH}{}_2 \\ \text{CH}{}_3 \\ \text{CH}{}_4 \\ \text{CH}{}_4 \\ \text{CH}{}_4 \\ \text{CH}{}_5 \\ \text{CH}{}_4 \\ \text{CH}{}_5 \\$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 139470-30-7 CAPLUS
CN L-threo-Pentitol, 2-[[2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3phenylpropyl]amino]-3-(methylthio)-1-oxopropyl]amino]-1-cyclohexyl1,2,4trideoxy-5-S-(1-methyl-1H-tetrazol-5-yl)-5-thio-, [S-(R*,S*)]-,
bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CRN 139470-29-4 CMF C32 H50 N8 O5 S2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

IT 139470-54-5

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of renin inhibitor)

RN 139470-54-5 CAPLUS

CN L-threo-Pentitol, 1-cyclohexyl-1,2,4-trideoxy-2-[[3-(methylthio)-1-oxo-2-[[1-oxo-3-phenyl-2-[[[4-[[(phenylmethoxy)carbonyl]amino]-1-piperidinyl]carbonyl]oxy]propyl]amino]propyl]amino]-5-S-2-pyridinyl-5-thio-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

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L4 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1992:42060 CAPLUS Full-text

DN 116:42060

TI Preparation of N1-(1-heteroaryl-1-hydroxyalk-2-yl)-N2-(3-alkoxycarbonyl-

2-

arylmethylpropionyl)- $\!\alpha\!$ -aminoalkanamides and analogs as renin inhibitors

IN Albright, Jay Donald; Howell, Charles Frederick; Levin, Jeremy Ian; Sum, Fuk Wah; Reich, Marvin Fred

PA American Cyanamid Co., USA

SO Eur. Pat. Appl., 106 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

L MIA .	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 427939	A2	19910522	EP 1990-117977	19900919
	EP 427939	A3	19911106		
	R: AT, BE,	CH, DE	, DK, ES, FR,	GB, GR, IT, LI, NL	, SE
	CA 2027125	AA	19910412	CA 1990-2027125	19901009
	JP 03178962	A2	19910802	JP 1990-272062	19901009
	AU 9064505	A1	19910418	AU 1990-64505	19901010
	US 5104869	A	19920414	US 1990-605067	19901025
PRAI	US 1989-419810		19891011	·	
os	MARPAT 116:42060)			
GI					

CHMe₂ CHMe₂ S
$$Q1=$$
RNH CONH I R^9

QNR3CHR4CONR5CHR6CH(OH)A [A = (un)substituted heteroaryl; Q = (R)-R1COWCHR2CO; R1 = alkoxy, NR7R8; R7 = H, alkyl; R8 = (un)substituted alkyl; or NR7R8 = heterocyclyl; R2 = (un)substituted arylmethyl; R3, R5 = H, Me; R4 = (amino)alkyl, PhCH2, alkoxy, heteroarylmethyl, etc.; R6 = (alkoxy)alkyl, PhCH2, cyclohexylmethyl, etc.; W = CH2, O] were prepared Thus, QOH (Q = acylisobutanoyl group Q1; R9 = OCMe3) (preparation given) was condensed with leucylaminopentanol I (R = H) (preparation given) to give I (R = Q1, R9 = OCMe3). I [R = Q1, R9 = 2-(N-methyl-2-pyrrolyl)ethylamino] had IC50 of 3.3 + 10-8M against angiotensin I generation in vitro.

IT 138275-97-5P 138275-98-6P 138275-99-7P 138276-00-3P 138276-01-4P 138276-02-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as remin inhibitor)

```
RN 138275-97-5 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-2-(2-
pyridinyl)ethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-
(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX
NAME)
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Absolute stereochemistry.

RN 138275-98-6 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-2-(2thienyl)ethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

RN 138275-99-7 CAPLUS
CN 4-Thiomorpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-2(2-thienyl)ethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

RN 138276-00-3 CAPLUS

CN 4-Thiomorpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-2-

(2-pyridinyl)ethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138276-01-4 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-(2-furanyl)-2-

hydroxyethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1- (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

CN 4-Thiomorpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-(2-furanyl)-2-hydroxyethyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]- (9CI) (CA INDEX NAME)

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L4 ANSWER 31 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 1991:559807 CAPLUS Full-text

DN 115:159807

TI Preparation of dipeptidylalkanepolyols as renin inhibitors

IN Kleemann, Heinz Werner; Urbach, Hansjoerg; Wagner, Adalbert; Ruppert, Dieter; Linz, Wolfgang; Kramer, Werner

PA Hoechst A.-G., Germany

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

GΙ

PAN.	DVULY N.T. T	IT NO	1	KTND	DATE		ΔÞI	PT.TCATTC	N NO.	DATE
		vi NO.								
ΡI	EP 41	10278		A1	19910130		EP	1990-11	13712	19900718
	EP 41	10278		В1	19940119					
	I	R: AT,	BE, C	H, DE	, DK, ES,	FR,	GB,	GR, IT,	LI, LU	, NL, SE
		924506								19890725
	DE 39	932817		A1	19910411		DE	1989-39	32817	19890930
	AT 10	00463		E	19940215		ΑT	1990-11	L3712	19900718
	ES 20	062214		Т3	19941216		ES	1990-11	L3712	19900718
	HU 55	5033		A2	19910429		HU	1990-45	582	19900723
	HU 20	05140		В	19920330					
	DD 29	96690		A 5						19900723
	CA 20	021822		AA	19910126		CA	1990-20	021822	19900724
	NO 90	003291		Α	19910128			1990-32		19900724
	AU 90	059719		A1	19910131		AU	1990-59	9719	19900724
	AU 63	39246		B2	19930722					
	CN 10	049164		Α	19910213		CN	1990-10	04822	19900724
		3066652			19910322			1990-19		
	ZA 90	005804		A	19910424		ZA	1990-58	304	19900724
	RU 20	001907		C1	19931030		RU	1990-48	330591	19900724
PRAI	DE 19	989-3924	1506		19890725					
	DE 19	989-3932	2817		19890930					
	EP 1	990-113	712		19900718					
os	MARPAT 115:159807									

AB Title compds. A-NR2CHR3CONHCHR4[CH(OH)]nCH2OH [A = aminoalkanoyl, alkoxyalkanoyl, alkanoyl, etc.; R2 = H, alkyl; R3 = cycloalkyl, di- or tricycloalkyl, cycloalkylcarbonyl, etc.; R4 = alkyl, mono-, di-, or tricycloalkyl, etc.; n = 2-10], useful as renin inhibitors (no data), were prepared Iva-Phe-Nva-OH [Iva = isovaleryl, Nva = norvaline] in CH2Cl2 containing N-ethylpiperidine and pivaloyl chloride was treated with L-gulo-pentol (HQ) (preparation given) at room temperature for 20 h to give Iva-Phe-Nva-Q (I). I had an IC50 of 4.2 + 10-7 M against renin in human plasma.

IT 135901-96-1P 135901-97-2P

RL: BAC (Biological activity or effector, except adverse); BSU

Q

(Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor) RN 135901-96-1 CAPLUS

CN D-manno-Heptitol, 2-[[2-[[(4-amino-1-piperidinyl)carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-1,2-dideoxy-, [2ξ[S(S)]]- (9CI) (CA INDEX NAME)

RN 135901-97-2 CAPLUS

CN D-manno-Heptitol, 2-[[2-[[2-[[[4-(aminomethyl)-1-piperidinyl]carbonyl]oxy]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-1-cyclohexyl-1,2-dideoxy-, [2ξ[S(S)]]- (9CI) (CA INDEX NAME)

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L4 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1991:536788 CAPLUS Full-text

DN 115:136788

TI Preparation of renin-inhibiting difluorodiol-containing peptides

IN Sham, Hing L.; Rosenberg, Saul H.

PA Abbott Laboratories, USA

SO Eur. Pat. Appl., 68 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

ran. CNI I								
	PATENT NO.	KIND	DATE	APPLICATION NO. DATE				
PI	EP 416393	A1	19910313	EP 1990-116225 19900824				
	R: AT, BE,	CH, DE	, DK, ES, FR,	GB, GR, IT, LI, LU, NL, SE				
	AU 9061934	A1	19910314	AU 1990-61934 19900828				
	CA 2024698	AA	19910306	CA 1990-2024698 19900905				
	JP 03148246	A2	19910625	JP 1990-235483 19900905				
PRAI	US 1989-403437		19890905					
	US 1990-561537		19900806					
os	MARPAT 115:1367	88						
GI		•						

$$^{R3}_{R-Z1-Z2-Z3-Z4-CONHCH-Z5-CF2-Z6-R8}$$

BOC-Phe-Leu-NH

IT

135934-08-6P

CH2CHCH(OH)CF2CH(OH)CHMe2

II

Renin-inhibiting difluorodiol-containing peptides I [R = H, C1-7 alkyl, aryl, heterocyclyl, etc.; Z2 = CO, CHOH, NR2; R2 = H, C1-7 alkyl; Z3 = CO, CH2, NR2; Z4 = CH, COH, C(halo); Z1 = CHR1, C(:CHR7); R1 = C1-7 alkyl, cycloalkylalkyl, aralkyl, etc.; R7 = aryl, heterocyclyl; R3 = C1-7 alkyl, C2-7 alkenyl, hydroxyalkyl, etc.; R4 = C1-7 alkyl, cycloalkylmethyl, CH2Ph; Z5, Z6 = CHOH, CO; R8 = C1-7 alkyl, aryl, aralkyl, etc.; with provisos], useful also as antihypertensives, for example, were prepared Thus, 1 equiv N-methylmorpholine and 1 equiv C1CO2CH(Me)Et were added to a solution of BOC-Phe-Leu-OH in THF at -20°. The mixture was stirred 10 min and a solution of 2(S)-amino-1-cyclohexyl-4,4-difluoro-3(R),5(R)-dihydroxy-6-methylheptane (preparation given) in THF was added. The resulting solution was stirred 0.5 h, filtered and concentrated to give title compound (2S,3R,5R)-II. II had an IC50 of 0.64 nM against human renal renin.

RL: BAC (Biological activity or effector, except adverse); BSU

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L4 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

TI Preparation of acylamino acid amides as renin inhibitors and antivirals

IN Heitsch, Holger; Henning, Rainer; Linz, Wolfgang; Nickel, Wolf Ulrich; Ruppert, Dieter; Urbach, Hansjoerg

PA Hoechst A.-G., Germany

SO Eur. Pat. Appl., 38 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

1774.	PATENT NO.		DATE	APPLICATION NO.	DATE			
PI	EP 417698	A2		EP 1990-117400	19900910			
	EP 417698	A 3	19920108					
	EP 417698	В1	19960313					
	R: AT, BE, C	H, DE	, DK, ES, FR,	GB, GR, IT, LI, LU	, NL, SE			
	DE 4028741	A 1	19910328	DE 1990-4028741	19900910			
	DD 295377	A5	19911031	DD 1990-343925	19900910			
	US 5374731	Α	19941220	US 1990-579695	19900910			
	AT 135368	E	19960315	AT 1990-117400	19900910			
	ES 2086341	Т3	19960701	ES 1990-117400	19900910			
	CA 2025093	AA	19910313	CA 1990-2025093	19900911			
	NO 9003952	Α	19910313	NO 1990-3952	19900911			
	NO 177143	В	19950418					
	NO 177143	С	19950726					
	AU 9062340	A1	19910321	AU 1990-62340	19900911			
	AU 639259	B2	19930722		•			
	JP 03106877	A2	19910507	JP 1990-239140	19900911			
	HU 55380	A2	19910528	HU 1990-5859	19900911			
	HU 206704	В	19921228					
	ZA 9007205	Α	19910626	ZA 1990-7205	19900911			
PRAI	DE 1989-3930397		19890912					
	DE 1989-3933096		19891004					
OS	MARPAT 115:115099							

AΒ R1-X-Y-CHR2CO-B-NHCHR3CH(OH)CHR4R5 [I; R1 = (substituted) amino(alkyl)heterocyclyl, e.g., 4-amino-1-piperidinyl, heterocyclylamino, e.g., 4-piperidinylamino; R2 = H, alkyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl, heteroaryl, heteraralkyl; R3 = H, alkyl, cycloalkyl, cycloalkylalkyl, aryl aralkyl; R4 = H, alkyl, aryl, aralkyl, OH, NH2; R5 = heterocyclyl (substituted) alkyl; X = CO, CS, SO2; Y =bond, (substituted) alkylene, O, S; B = amino acid residue, e.g., His, Phe] were prepared BOC-His(DNP)-NHCH(CH2Q)CH(OH)CH(OH)CH2CH2-Q1 [DNP = 2,4-dinitrophenyl; Q = cyclohexyl, Q1 = 2-pyridyl] (preparation given) was deprotected with CF3CO2H-CH2Cl2 and the product condensed with Q2-COCH2CH(Bzl)CO2H [Bzl = benzyl, Q2 = 4-tert-butoxycarbonylamino-1piperidinyl] (preparation given) in DMF containing DCC, 1-hydroxy-1Hbenzotriazole, N-ethylmorpholine to give, after deprotection with thiophenol in MeCN, I [R1 = 4-amino-1-piperidinyl, R2 = Bzl, X = CO, Y = bond, B = His, R3 = cyclohexylmethyl, R4 = OH, R5 = 2-(2pyridinyl)ethyl]. In an in vitro test using human plasma I showed ED50 values of 10-5 to 10-10 mol/L against formation of angiotensin from angiotensinogen and renin.

IT 135631-96-8P 135631-98-0P 135632-04-1P 135632-09-6P 135632-11-0P 135632-26-7P 135632-28-9P 135650-70-3P 135650-81-6P

AN 1991:515099 CAPLUS Full-text

DN 115:115099

135672-19-4P 135683-93-1P 135683-95-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as antihypertensive and antiviral)

RN 135631-96-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-

1-

 $(1H-imidazol-4-ylmethyl)-2-oxoethyl] amino]-2-oxo-1-(phenylmethyl) ethylester, \\ [1S-[1R*[R*(R*)],2S*,3R*]]-(9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 135631-98-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135631-97-9 CMF C38 H53 N7 O6

CRN 76-05-1 CMF C2 H F3 O2

RN 135632-04-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]-

, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135632-03-0 CMF C38 H53 N7 O5

CRN 76-05-1 CMF C2 H F3 O2

RN 135632-09-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[1-[[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]carbonyl]butyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

RN 135632-11-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[1-[[[1-(cyclohexylmethyl)-

2,3-

 $\label{lem:dihydroxy-5-(2-pyridinyl)pentyl]amino]carbonyl]butyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1R-[1R*[R*(R*)],2S*,3R*]]-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)$

CM 1

CRN 135632-10-9 CMF C37 H55 N5 O6

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 135632-26-7 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]2,6dimethyl-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2oxo1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

RN 135632-28-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-2,6-dimethyl-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135632-27-8 CMF C40 H57 N7 O6

CRN 76-05-1 CMF C2 H F3 O2

RN 135650-81-6 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[[(1,1-dimethylethoxy)carbonyl]amino]methy
1]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA
INDEX
NAME)

Absolute stereochemistry.

RN 135672-19-4 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-(aminomethyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[R*(R*)],2S*,3R*]]-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135672-18-3 CMF C39 H55 N7 O6

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 135683-93-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]-, acetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135631-97-9 CMF C38 H53 N7 O6

CRN 64-19-7 CMF C2 H4 O2

о но—С—Сна

RN 135683-95-3 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-amino-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-(2-pyridinyl)pentyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-

[1R*[R*(R*)], 2R*]]-, acetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 135632-03-0 CMF C38 H53 N7 O5

CRN 64-19-7 CMF C2 H4 O2

HO-C-CH3

IT 135632-32-5P 135632-66-5P 135650-87-2P 135672-20-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as intermediate for antihypertensives and antivirals)

RN 135632-32-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-pyridinyl)pentyl]amino]-1-

 $\label{lem:condition} \hbox{\tt [[1-(2,4-dinitrophenyl)-1H-imidazol-4-yl]methyl]-2-oxoethyl]\,amino]-2-oxo-1-}$

(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

NAME)

RN 135632-66-5 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]2,6dimethyl-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2pyridinyl)pentyl]amino]-1-[[1-(2,4-dinitrophenyl)-1H-imidazol-4yl]methyl]2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX

PAGE 1-A

RN 135650-87-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-(2-pyridinyl)pentyl]amino]-2-

oxo-

1-[[1-(triphenylmethyl)-1H-imidazol-4-yl]methyl]ethyl]amino]-2-oxo-1- (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 135672-20-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[(1,1-

dimethylethoxy) carbonyl]amino]methy

1]-, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-(2-

pyridinyl)pentyl]amino]-1-[[1-(2,4-dinitrophenyl)-1H-imidazol-4yl]methyl]-

2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

- ANSWER 34 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN L4
- 1991:472226 CAPLUS Full-text AN
- DN 115:72226
- Amino acid derivatives ΤI
- Branca, Quirico; Neidhart, Werner; Ramuz, Henri; Stadler, Heinz; Wostl, IN
- Hoffmann-La Roche, F., und Co. A.-G., Switz. PA
- Eur. Pat. Appl., 71 pp. SO

CODEN: EPXXDW

DTPatent

LΑ German

FAN.CNT 1									
	PATENT NO.			KIND	DATE		APPLICATION NO.	DATE	
ΡI	EP 4163	373		A2	19910313		EP 1990-116088	19900822	
	EP 4163	373		A 3	19920527				
	R:	AT,	BE, C	CH, DE	E, DK, ES,	FR,	GB, GR, IT, LI, LU	J, NL, SE	
	CA 2023	099		AA	19910305		CA 1990-2023099	19900810	
	AU 9061	.360		A1	19910307		AU 1990-61360	19900827	
	AU 6466	40		B2	19940303				
	ZA 9006	856		Α	19910626		ZA 1990-6856	19900828	
	HU 5806	0		A2	19920128		ни 1990-5676	19900829	
	JP 0309	9047		A2	19910424		JP 1990-228473	19900831	
	NO 9003	8832		Α	19910305		NO 1990-3832	19900903	
	US 5688	946		Α	19971118		US 1994-277111	19940719	
PRAI	CH 1989	-3192			19890904				
	CH 1990	-2336			19900712				
	US 1990	-5716	89		19900823				
os	MARPAT	115:7	2226						
GI									

- Amino acid derivs. RCONR1CH(CH2R2)CONHCHR3CHR4CR5R6R7 (R-R7 = AΒ substituents) were prepared for use as antihypertensives and renin inhibitors. Thus, amide I was prepared from epoxide II, H-His-OMe.2HCl, and (S)-PhCH2CH(CO2H)CH2SO2CMe3 in 5 steps. I had a renin-inhibiting ED50 of 0.0009 $\mu M/L$.
- 134362-84-8P IT

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and renin inhibiting activity of)

- 134362-84-8 CAPLUS RN
- 1-Piperidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-3-cyclopropyl-CN 2,3-dihydroxypropyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-
- 2oxo-1-(phenylmethyl) ethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]-(9CI) (CA

INDEX NAME)

Absolute stereochemistry.

IT 134362-82-6P 134453-80-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 134362-82-6 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-3-cyclopropyl-2,3-dihydroxypropyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-

2oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[S*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 134453-80-8 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-3-cyclopropyl-2,3-dihydroxypropyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-

2oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

```
L4 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 1991:247790 CAPLUS Full-text

DN 114:247790

TI Preparation of peptide analogs as renin inhibitors

IN Uchida, Itsuo; Shibata, Saizo; Yamada, Yasuki; Ikemoto, Yukinari; Iwata, Kunio; Ikegami, Kiyoteru; Nakamura, Ikuro

PA Japan Tobacco, Inc., Japan; Yoshitomi Pharmaceutical Industries, Ltd.

SO Eur. Pat. Appl., 92 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

$$\begin{array}{c} & & & \\ & & & \\ R^2 & & \\ R^1 - \dot{c}H - con - \dot{c}H - conH - \dot{c}H - cH - cH_2 - \dot{c} - R^4 \\ & & \dot{R}^3 & \dot{o}H & \dot{B} & \mathbf{I} \end{array}$$

The title compds. [I; R1 = NH2, alkoxycarboxamido, morpholinocarbonylmethyl (Q), etc.; R2 = (substituted) aralkyl; R3 = H, alkyl; R4 = alkyl; A = OH and B = H, or AB = CO], were prepared 4 M HCl-dioxane and isopentyl nitrite were added sequentially to a solution of histidine hydrazide derivative II in DMF, the mixture was stirred 30 min at -20°, cooled to -30°, and neutralized with Et3N; 1-cyclohexyl-2-amino-3,5-dihydroxy-6-methylheptane in DMF was added, and the resulting mixture was stirred at 0°for 48 h to give I [A = OH, R1 = Q, R2 = 2-naphthylmethyl, R3 = B = H, R4 = Me2CH]. The latter showed IC50 = 5.3 + 10-10 M against human renin.

IT 134018-11-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological $\,$

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as renin inhibitor)

RN 134018-11-4 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,4-dihydroxy-5-

methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
DN
     114:247788
ΤI
     Peptide derivatives preparation as retroviral protease inhibitors
     Kempf, Dale J.; Plattner, Jacob J.; Norbeck, Daniel W.; Boyd, Steven A.;
IN
     Baker, William R.; Erickson, John W.; Fung, Anthony K. L.; Crowley,
Steven
     R.
     Abbott Laboratories, USA
PΑ
SO
     PCT Int. Appl., 222 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
PΙ
     WO 8910752
                            19891116
                                           WO 1989-US2055
                                                            19890512
                       A1
         W: AU, DK, JP, KR, US
         RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
     EP 342541
                       A2
                            19891123
                                           EP 1989-108590
                                                            19890512
     EP 342541
                       AЗ
                            19911106
         R: ES, GR
     AU 8935660
                       A1
                            19891129
                                           AU 1989-35660
                                                             19890512
     EP 415981
                       A1
                            19910313
                                           EP 1989-905856
                                                             19890512
         R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE
                       T2
                            19910919
                                           JP 1989-506033
                                                             19890512
     JP 03504247
PRAI US 1988-194678
                            19880513
     WO 1989-US2055
                            19890512
OS
     MARPAT 114:247788
     Peptide derivs. are prepared as retroviral protease inhibitors.
AΒ
     Synthetic processess involved carbodiimide coupling, or coupling in
     combination with deprotection, and reaction with mixed anhydrides.
     Thus, N-methyl-1-cyclohexenecarboxamide was treated with BuLi in THF,
     treated with ClTi(OPr-iso)3, and then Boc-phenylalaninal to give N-
     methyl-6-[2-(tert-butoxycarbonyl)amino-1-hydroxy-3-phenyl]propyl-1-
     cyclohexenecarboxamide. This was then deprotected with HCl in dioxane
     to give N-methyl-6-(2-amino-1-hydroxy-3-phenylpropyl)-1-
     cyclohexenecarboxamide-HCl (I). I was coupled with Boc-Leu-Asn in the
     presence of 180-BuO2CCl to give the amide.
     129776-69-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN
     129776-69-8 CAPLUS
     4-Morpholinecarboxylic acid, 2-[[3-amino-1-[[[2-cyclopentyl-2-hydroxy-1-
     (phenylmethyl)ethyl]amino]carbonyl]-3-oxopropyl]amino]-1-(2-
```

ANSWER 36 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

1991:247788 CAPLUS Full-text

L4

ΑN

methylpropyl)-

2-oxoethyl ester (9CI) (CA INDEX NAME)

PAGE 2-A

```
ANSWER 37 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
L4
```

1991:199052 CAPLUS Full-text AN

114:199052

Orally active renin inhibitors containing a novel aminoglycol dipeptide TI (Leu-Val) mimetic

Hanson, Gunnar J.; Baran, John S.; Clare, Michael; Williams, Kenneth; ΑU Babler, Maribeth; Bittner, Stephen E.; Russell, Mark A.; Papaioannou, S. E.; Yang, Po Chang; Walsh, Gerald M.

G.D. Searle and Co., Skokie, IL, 60077, USA CS

Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp., 11th (1990), Meeting

Date 1989, 396-8. Editor(s): Rivier, Jean E.; Marshall, Garland R. Publisher: ESCOM Sci. Pub., Leiden, Neth. CODEN: 56XTA7

Conference

DT

English LA

A discussion on structure activity relationship and modeling of SC-46944AΒ complexation to endothiapepsin.

120729-15-9, SC 46944

RL: BIOL (Biological study)

(endothiapepsin binding of, renin inhibition and structure in relation

to)

120729-15-9 CAPLUS RN

4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[(1S,2R,3S)-1-CN (cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

```
ANSWER 38 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
AN
         1990:459840 CAPLUS Full-text
DN
         113:59840
         Preparation of peptides as inhibitors of renin and viral protease
TI
         Weller, Harold N., III; Ryono, Denis E.
IN
          E. R. Squibb and Sons, Inc., USA
PΑ
SO
          Eur. Pat. Appl., 33 pp.
          CODEN: EPXXDW
DT
          Patent
          English
LΑ
FAN.CNT 1
          PATENT NO.
                                          KIND DATE
                                                                                    APPLICATION NO. DATE
                                                                                       _____
          ______
          EP 341481
                                             A1
                                                                                                                       19890424
PI
                                                         19891115
                                                                                     EP 1989-107378
                 R: DE, FR, GB, IT
                                                                                       US 1988-187782
          US 5151513 A
                                                         19920929
                                                                                                                           19880429
                                              A2
                                                                                        JP 1989-111916
                                                                                                                           19890428
          JP 02011575
                                                         19900116
PRAI US 1988-187782
                                                         19880429
         MARPAT 113:59840
os
           XOCHR5CONHCHR4CONHCHR3CHR1OH [I; X = R6(CH2)mANR10CO, R6(CH2)mACO, etc.;
AB
           R1 = (benzo-fused) 5- or 6-membered N-heterocyclyl; R3, R4, R5 = H,
            (halo)alkyl, aryl(alkyl), amino(alkyl), heterocyclyl(alkyl),
           hydroxy(alkyl), etc.; R6 = H, alkyl, aryl, pyridyl, cycloalkyl; R10 =
           R6, arylalkyl, pyridylalkyl, cycloalkylalkyl; m = 0-5; A = bond,
           CH(CH2)mR6], useful as renin inhibitors (no data), were prepared Thus,
            [S-2-(4-morpholinylcarbonyloxy)-1-oxo-3-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropyl]-N-[1S,2R-1-phenylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylpropylp
           cyclohexylmethyl-2-hydroxy-2-(1H-imidazol-2-yl)ethyl]-L-histidinamide
           was prepared in 18 steps starting from L-phenylalanine. I are said to
           also be inhibitors of viral proteases and may be useful against
           retroviruses including HTLV-I and HTLV-III.
ΙT
          128188-29-4P
          RL: SPN (Synthetic preparation); PREP (Preparation)
                 (preparation of, as intermediate for renin inhibitor and viral
protease
                inhibitor)
RN
          128188-29-4 CAPLUS
          4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-2-
CN
[1-
           [(phenylmethoxy)methyl]-1H-imidazol-2-yl]ethyl]amino]-2-oxo-1-[[1-
           [(phenylmethoxy)methyl]-1H-imidazol-4-yl]methyl]ethyl]amino]-2-oxo-1-
           (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*]]-(9CI) (CA INDEX
NAME)
```

Absolute stereochemistry.

L4

IT 128188-25-0P

(9CI) (CA INDEX NAME)
Absolute stereochemistry.

●2 HCl

```
AN
    1990:669 CAPLUS Full-text
DN
    Amino acid derivatives, processes for their preparation, and
ΤI
    pharmaceutical compositions comprising them for treatment of
hypertension
    and heart failure
    Hemmi, Keiji; Neya, Masahiro; Marusawa, Hiroshi; Imai, Keisuke;
IN
Kayakiri,
    Natsuko; Hashimoto, Masashi
    Fujisawa Pharmaceutical Co., Ltd., Japan
PA
    Eur. Pat. Appl., 60 pp.
SO
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                       APPLICATION NO. DATE
                    ---- ---
                                       _______
                         19890125
    EP 300189
                    A2
                                       EP 1988-109430 19880614
PΤ
    EP 300189
                    Α3
                         19900822
    EP 300189
                   В1
                         19941102
        R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
                                  ZA 1988-4087
    ZA 8804087 A
                         19890222
                                                       19880608
    US 4921855
                    A
                         19900501
                                       US 1988-204549
                                                       19880609
    ES 2067456
                   T3 19950401
                                      ES 1988-109430
                                                       19880614
    FI 8802875
                   A
                         19881223
                                      FI 1988-2875
                                                       19880616
    FI 96202
                    В
                         19960215
    FI 96202
                    С
                         19960527
    IL 86782
                    A1
                         19930404
                                       IL 1988-86782
                                                       19880616
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                    A1
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                                       AU 1988-18190
                                                       19880621
    AU 617674
                    B2
                         19911205
    DK 8803400
                    A·
                         19881223
                                       DK 1988-3400
                                                       19880621
    NO 8802732
                    Α
                         19881223
                                       NO 1988-2732
                                                       19880621
    NO 175371
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                         19940627
    NO 175371
                    С
                         19941005
    CN 1030411
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                         19890118
                                       CN 1988-103878
                                                       19880621
    CN 1026892
                    В
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                    A2
                         19890123
                                       JP 1988-153041
                                                       19880621
    JP 06025147
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                         19940406
    HU 47917
                    A2
                         19890428
                                      HU 1988-3164
                                                       19880621
                    В
    HU 202212
                         19910228
                         19930307
    SU 1801107
                    A3
                                       SU 1988-4356019 19880621
    US 5142048
                   Α
                         19920825
                                       US 1990-462117
                                                       19900108
    RU 2070195
                    C1 19961210
                                       RU 1991-5010142 19911122
    US 5223489
                    A
                         19930629
                                       US 1992-828193
                                                       19920130
PRAI GB 1987-14597
                         19870622
    GB 1987-25511
                         19871030
    GB 1988-5389
                         19880307
```

ANSWER 39 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

L4

19880609

19900108

US 1988-204549

US 1990-462117

GΙ

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

```
A process for preparing I [R1 = lower alkyl optionally substituted with
AΒ
     acyl, hydroxy, lower alkoxy, aryl, lower alkylthio, NR5R6; R5 = H, acyl;
     R6 = H, lower alkyl, aryl, (lower alkyl- or acyl-substituted) amino; R2,
     R3 = H, lower alkyl; R4 = lower alkyl; R1NR2 = heterocycle optionally
     substituted with lower alkyl, hydroxy(lower)alkyl, lower
     alkoxy(lower)alkyl, acyl(lower)alkyl, oxo, acyl] or its pharmaceutically
     acceptable salt comprises (a) reacting II (R3, R4 as above; R8 = H, N-
     protective group) or its reactive derivative at the amino group or a
     salt thereof with III (R1, R2 as above) or its reactive derivative at
     the COO group or a salt thereof, and, if necessary, eliminating the N-
     protective group or (b) subjecting IV (R2, R3, R4, R6 as above; R7 = N-
     protective group; A = lower alkylene) or its salt to elimination
     reaction of R7 to give V (R2, R3, R4, R6, A as above) or its salt. I
     are useful as antihypertensives or for the treatment of heart failure.
     A solution of 2(S)-[N-(2-morpholinocarbonylethyl)-N-
     methylaminocarbonyloxy]-3-phenylpropionic acid (preparation described)
     449 and 2(S)-(Na-methyl-Nim-tosyl-L-histidyl)amino-1-cyclohexyl-3(S)-
     hydroxy- 6-methylheptane (preparation described) 300 mg in CH2Cl2 (30
     mL) was mixed with N-ethyl-N'-(3-dimethylaminopropyl)carbodiimide-HCl
     140 mg at 5^{\circ} overnight. The residue was dissolved in EtOAC, washed with
     HCl/NaHCO3, dried, redissolved in DMF, and reacted with pyridine-HCl 650
     mg for 2 h at room temperature Workup and purification by TLC yielded
     2(S) - [N\alpha - [2(S) - [N - (2 - morpholinocarbonylethyl) - N -
     methylaminocarbonyloxy]-3-phenylpropionyl]- Nα-methyl-L-histidyl]amino-
     1-cyclohexyl-3(S)-hydroxy-6-methylheptane (VI) 221 mg (m.p. 80-87°) as
     an amorphous powder. VI, dissolved in HCl and orally administered to
     Na-depleted male or female cynomolgus monkeys (32 mg/kg), reduced mean
     arterial blood pressure and plasma renin activity by 18 and 92%, resp.
     124072-32-8P 124072-33-9P 124072-38-4P
IT
     124072-39-5P 124072-40-8P 124072-41-9P
     124075-51-0P 124075-55-4P 124075-56-5P
     124075-65-6P 124075-74-7P 124075-80-5P
     124075-93-0P 124075-94-1P 124075-95-2P
     124075-96-3P 124075-97-4P 124075-98-5P
     124075-99-6P 124076-00-2P 124076-01-3P
     124076-02-4P 124076-03-5P 124076-04-6P
     124076-05-7P 124076-06-8P 124076-07-9P
     124076-08-0P 124076-09-1P 124076-10-4P
     124076-11-5P 124076-12-6P 124076-13-7P
     124076-14-8P 124076-15-9P 124076-16-0P
     124076-17-1P 124076-18-2P 124076-19-3P
     124076-20-6P 124076-21-7P 124076-22-8P
     124122-54-9P 124151-27-5P 124151-28-6P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of, as antihypertensive)
RN
     124072-32-8 CAPLUS
     4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-
     methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-
     (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]-(9CI) (CA INDEX
NAME)
```

RN 124072-33-9 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 124072-38-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[(dimethylamino)carbonyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl] methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [2R-[1[S*[S*(1S*,2S*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124072-39-5 CAPLUS
CN Pyrrolo[1,2-a]pyrazine-2(1H)-carboxylic acid, hexahydro-4-oxo-,
2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1Himidazol4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[8aS-[2[R*[R*(1R*,2R*)]],8aR*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124072-40-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-methyl-3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124072-41-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

RN 124075-51-0 CAPLUS
CN 1,2-Pyrrolidinedicarboxylic acid, 1-[[[2-[[1-(cyclohexylmethyl)-2-hydroxy5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]2oxo-1-(phenylmethyl)ethyl] 2-methyl ester, [2S[1[R*[R*(1R*,2R*)]],2R*]](9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-55-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-(hydroxymethyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,

[2S-[1[R*[R*(1R*,2R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124075-56-5 CAPLUS
CN 1H-Azepine-1-carboxylic acid, hexahydro-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-65-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-(methoxymethyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [2S-[1[R*[R*(1R*,2R*)]],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-74-7 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-[[(1-methylethyl)amino]carbonyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

RN 124075-80-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-93-0 CAPLUS

CN 1(2H)-Pyridazinecarboxylic acid, 2-acetyltetrahydro-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-94-1 CAPLUS

CN 1(2H)-Pyridazinecarboxylic acid, tetrahydro-2-(1-oxobutyl)-,

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-95-2 CAPLUS

CN 1(2H)-Pyridazinecarboxylic acid, tetrahydro-2-(2-methyl-1-oxopropyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-96-3 CAPLUS

CN 1(2H)-Pyridazinecarboxylic acid, 2-benzoyltetrahydro-,

 $2-[[2-[[1-({\tt cyclohexylmethyl})-2-{\tt hydroxy}-5-{\tt methylhexyl}]\,{\tt amino}]-1-(1{\tt H-imidazol-}$

RN 124075-97-4 CAPLUS

CN 1(2H)-Pyridazinecarboxylic acid, 2-(cyclohexylcarbonyl)tetrahydro-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124075-98-5 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-acetyl-, 2-[[2-[[1-(cyclohexylmethyl)-2-

hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

RN 124075-99-6 CAPLUS
CN 1-Pyrazolidinecarboxylic acid, 2-(2-methyl-1-oxopropyl)-,
2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1Himidazol4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124076-00-2 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-(methoxyacetyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124076-01-3 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-[4-(dimethylamino)-1-oxobutyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-02-4 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-[(benzoylamino)acetyl]-,

2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124076-03-5 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-[(methylamino)carbonyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1s-[1R*(R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

CN 1-Pyrazolidinecarboxylic acid, 2-(4-morpholinylcarbonyl)-,
2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1Himidazol4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124076-05-7 CAPLUS
CN 1-Pyrazolidinecarboxylic acid, 2-[2-[[(1,1-dimethylethoxy)carbonyl]amino]4-methyl-1-oxopentyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124076-07-9 CAPLUS

CN 1-Pyrazolidinecarboxylic acid, 2-[2-[[(1,1-

dimethylethoxy) carbonyl]amino]-

5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-

oxo-1-(phenylmethyl) ethyl ester, $[1S-[1R^*[R^*(R^*)]],2R^*]]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

2-

RN 124076-08-0 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-methyl-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-09-1 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(methylamino)carbonyl]-,

2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-10-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[[(1,1-

dimethylethoxy)carbonyl]amino]acety

l]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethylester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

__C_OBu-t

RN 124076-11-5 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-(4-morpholinylcarbonyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 124076-12-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-13-7 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 2-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-14-8 CAPLUS

CN 1(2H)-Pyridinecarboxylic acid, 3,6-dihydro-, 2-[[2-[[1-(cyclohexylmethyl)-

2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-15-9 CAPLUS

CN 3-Thiazolidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*[R*(R*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124076-16-0 CAPLUS

CN 3-Thiazolidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, 1-oxide, [1S-[1R*[R*[R*(R*)]],2R*]]-(9CI) (CA INDEX NAME)

RN 124076-17-1 CAPLUS

CN 3-Thiazolidinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, 1,1-dioxide, [1S-

[1R*[R*[R*(R*)]],2R*]]-(9CI) (CA INDEX NAME)

RN 124076-18-2 CAPLUS

CN 4-Thiomorpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-

 $\label{lem:methylnexyl} $$ methylnexyl]$ amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]$ methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*(R*))],2R*]]-(9CI) (CA INDEX NAME)$

RN 124076-19-3 CAPLUS

CN 54-Thiomorpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-

methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, 1-oxide, [1S-[R*[R*(R*)],2R*]]-(9CI) (CA INDEX NAME)

RN 124076-20-6 CAPLUS
CN 4-Thiomorpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2oxo-1-(phenylmethyl)ethyl ester, 1,1-dioxide, [1S[1R*[R*[R*(R*)]],2R*]]-

(9CI) (CA INDEX NAME)

RN 124076-21-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 3-[(dimethylamino)carbonyl]-2-methyl-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

Absolute stereochemistry.

RN 124076-22-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-methyl-2-(2-methylpropyl)-3-oxo-,
2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1Himidazol4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[3S-[3R*,4[R*[R*(1R*,2R*)]]]- (9CI) (CA INDEX NAME)

RN 124122-54-9 CAPLUS
CN Pyrrolo[1,2-a]pyrazine-2(1H)-carboxylic acid, hexahydro-3-[2-(4-morpholinyl)-2-oxoethyl]-4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [3S-[2[R*[R*(1R*,2R*)]],3α,8aβ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124151-27-5 CAPLUS

CN 1,2-Pyrrolidinedicarboxylic acid, 1-[2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl] 2-methyl ester, [2R-[1[S*[S*(1S*,2S*)]],2R*]]- (9CI) (CA INDEX NAME)

RN 124151-28-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-(hydroxymethyl)-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [2R-[1[S*[S*(1S*,2S*)]],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 124072-32-8P 124072-33-9P 124072-38-4P 124072-39-5P 124072-40-8P 124072-41-9P 124072-47-5P 124151-27-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as antihypertensive, renin inhibition in relation

RN 124072-32-8 CAPLUS

to)

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124072-33-9 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2R*]]- (9CI) (CA

INDEX

NAME)

Absolute stereochemistry.

RN 124072-38-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[(dimethylamino)carbonyl]-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

Absolute stereochemistry.

RN 124072-39-5 CAPLUS

CN Pyrrolo[1,2-a]pyrazine-2(1H)-carboxylic acid, hexahydro-4-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-

4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester, [8aS-[2[R*[R*(1R*,2R*)]],8aR*]]- (9CI) (CA INDEX NAME)

RN 124072-40-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-methyl-3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,

[1S-[1R*[R*(R*)],2R*]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124072-41-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-oxo-, 2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl ester,
[1S-[1R*[R*(R*)],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 124072-47-5 CAPLUS
CN 1(2H)-Pyridazinecarboxylic acid, tetrahydro-2-[[(1-

INDEX

NAME)

Absolute stereochemistry.

RN 124151-27-5 CAPLUS

CN 1,2-Pyrrolidinedicarboxylic acid, 1-[2-[[2-[[1-(cyclohexylmethyl)-2-hydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]methylamino]-2-oxo-1-(phenylmethyl)ethyl] 2-methyl ester, [2R-[1[S*[S*(1S*,2S*)]],2R*]]- (9CI) (CA INDEX NAME)

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ANSWER 40 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN-
AN
     1989:574667 CAPLUS Full-text
DN
     111:174667
TI
     Preparation of N-dihydroxyalkyl-N\alpha-[[\alpha-
     (heterocyclylcarbonyloxy) alkanoyl] -\alpha-amino acid amides as
     antihypertensive agents
     Hanson, Gunnar James; Baran, John Stanislaus
IN
     G.D. Searle and Co., USA
PA
SO
     Eur. Pat. Appl., 39 pp.
     CODEN: EPXXDW
     Patent
DT
     English
LΑ
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                      A2 ·
     EP 310071
                                           EP 1988-116074
                            19890405
                                                            19880929
PΙ
                      A3
     EP 310071
                            19891129
         R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE
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                                         US 1987-103625
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                            19890502
PRAI US 1987-103625
                            19871001
     CASREACT 111:174667; MARPAT 111:174667
     For diagram(s), see printed CA Issue.
GΙ
     The title compds. [I; A = O, S; R1 = H, alkyl, haloalkyl,
AΒ
     alkoxycarbonyl, etc.; R2 = alkyl, PhCH2; R3 = alkyl, acylaminoalkyl,
     naphthylmethyl, aryl, (substituted) PhCH2; R4, R5 = H, alkyl; R6 =
     (un) substituted cycloalkyl, Ph, cycloalkylalkyl, phenylalkyl; T = H,
     alkyl, alkoxy, etc.; X = cyclic imino groups Q1-Q3, NR7R8; Q, Y = CH2,
     CHOR9, O, S, SO, SO2, NR10; R9 = H, alkyl; R10 = H, Ph, COR11; R11 = H,
     alkyl; a-d = 0-3; m, n = 1-4; p = 1-3; r, t-v = 0-2] were prepared
     (2R,3S)-RNHCH(CH2Ph)CH(OAc)CHO (R = BOC = Me3CO2C) (preparation given)
     was stirred 2 h with Me2CHCH2MgCl in THF and the product, after
     hydrolysis, was hydrogenated over Rh/C to give (2S, 3R, 4S) -
     RNHCH(CH2R6)[CH(OH)]2CH2CHMe2 (II; R = BOC, R6 = cyclohexyl) which was
     deprotected and condensed with L-Me2CHCH2CH(NHBOC)CO2CO2CH2CHMe2
     (prepared from BOC-L-leucine and ClCO2CH2CHMe2) to give, after
     deprotection, the L-leucinamide of II (R = H, R6 = cyclohexyl). The
     latter was added to O-(morpholinocarbonyl)-3-L-lactic acid which had
     been treated with ClCO2CH2CMe2 in CH2Cl2 and the whole maintained 8 h at
     0° to give the N'-[O-(morpholinocarbonyl)-3-L-phenyllactyl]-L-
     leucineamide of II (R = H, R6 = cyclohexyl) which had ED50 of 0.012
     mg/kg i.v. for reduction of plasma renin activity in Rhesus monkeys.
IT
     122994-25-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
     RACT (Reactant or reagent) (preparation and reaction of, in preparation
     of antihypertensives)
     122994-25-6 CAPLUS
RN
     4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-carboxy-3-
CN
     methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI)
                                                                 (CA INDEX
     NAME)
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Absolute stereochemistry.

L4

IT 120729-15-9P 122994-22-3P 122994-23-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as antihypertensive)

RN 120729-15-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R,3S)-1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 122994-22-3 CAPLUS

CN L-Arabinitol, 1-cyclohexyl-1,2,5-trideoxy-2-[[(2S)-4-methyl-2-[[(2S)-2-[(4-morpholinylcarbonyl)oxy]-1-oxo-3-phenylpropyl]amino]-1-oxopentyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 122994-23-4 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R)-1-(cyclohexylmethyl)-2,3-dihydroxypropyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX NAME)

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L4 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:225010 CAPLUS Full-text

DN 110:225010

TI A new class of orally active glycol renin inhibitors containing phenyllactic acid at P3

AU Hanson, Gunnar J.; Baran, John S.; Lowrie, Harman S.; Russell, Mark A.; Sarussi, Steven J.; Williams, Kenneth; Babler, Maribeth; Bittner, Stephen

E.; Papaioannou, S. E.; et al.

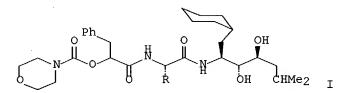
CS G. D. Searle and Co., Skokie, IL, 60077, USA

SO Biochemical and Biophysical Research Communications (1989), 160(1), 1-5 CODEN: BBRCA9; ISSN: 0006-291X

DT Journal

LA English

GI



AB A new series of renin inhibitors based on dipeptide glycols, replacing the P4-P3 subsites with an O-(N-morpholinocarbonyl)-3-L-phenyllactic acid residue I (R = iso-Bu, CH2-imidazole, etc.) was tested. This modification proved bioisosteric with Boc-L-phenylalanine, giving rise to highly potent human renin inhibitors (1-5 nM), e.g., SC-46944 (IC50 = 5 nM). Moreover, this change produced compds. that are orally efficacious in reducing plasma renin activity in salt-depleted marmosets.

IT 114457-15-7, SC 47563 120729-15-9, SC 46944 120768-80-1, SC 47557 120850-29-5, SC 48272

RL: BIOL (Biological study)

(renin inhibition by, structure in relation to, in humans and laboratory animals)

RN 114457-15-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 120729-15-9 CAPLUS

CN 4-Morpholinecarboxylic acid, (1S)-2-[[(1S)-1-[[[(1S,2R,3S)-1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester (9CI) (CA INDEX

Absolute stereochemistry.

RN 120768-80-1 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-[[1-[(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]methyl]-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 120850-29-5 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]carbonyl]-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(S*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

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ANSWER 42 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
T.4
    1989:154889 CAPLUS Full-text
AN
DN
    110:154889
    Preparation of norstatine- and norcyclostatine-containing peptides as
    renin inhibitors
    Hoover, Dennis Jay; Wester, Ronald Thure; Rosati, Robert Louis
IN
    Pfizer Inc., USA
PA
    Eur. Pat. Appl., 86 pp.
SO
    CODEN: EPXXDW
DT
    Patent
    English
LΑ
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                                                       DATE
                    KIND DATE
    PATENT NO.
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                                        EP 1987-309461
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    EP 266950
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    EP 266950
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    CN 1027271
                    В
                          19950104
                          19890321
                                        US 1987-112976
                                                         19871023
                    Α
    US 4814342
                                        AT 1987-309461
                                                         19871027
                          19940115
    AT 99324
                     Ε
                     Т3
                                        ES 1987-309461
                                                         19871027
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    ES 2061512
                     A1
                                        CA 1987-550413
                                                         19871028
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    CA 1310793
                     A
                                        DK 1987-5684
                                                         19871030
                          19880501
    DK 8705684
                                        FI 1987-4787
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     FI 8704787
                     В
                          19931015
     FI 90346
                     c 19940125
     FI 90346
                                         NO 1987-4530
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    NO 8704530
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                     В
    NO 173017
                         19930705
                         19931013
    NO 173017
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                     A1
                          19880505
                                        AU 1987-80541
     AU 8780541
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                          19890608
    AU 585180
                     A2
                          19880628
                                        HU 1987-4901
                                                         19871030
     HU 45270
                     В
                          19930628
     ни 207869
                                         JP 1987-275583
                                                         19871030
     JP 63183551
                     A2
                          19880728
                                                         19871030
     DD 262583
                     A5
                          19881207
                                         DD 1987-308473
                                         ZA 1987-8158
                                                         19871030
     ZA 8708158
                     Α
                          19890628
                     A3
                                         SU 1987-4203604
                                                         19871030
                          19920115
     SU 1706391
                                         US 1988-277614
                                                         19881129
     US 4935405
                     Α
                          19900619
                                                         19900321
                                         US 1990-497041
     US 5034376
                      Α
                          19910723
                                         IN 1990-DE781
                                                         19900803
     IN 175148
                     Α
                          19950506
                                                         19940916
                                         JP 1994-221930
                      A2
                          19950711
     JP 07173134
     JP 07108901
                      B4
                          19951122
PRAI US 1986-925449
                     Α
                           19861031
     US 1987-68982
                     Α
                           19870701
                      Α1
                           19871015
     IN 1987-DE905
     US 1987-112976
                      A3
                           19871023
     EP 1987-309461
                      A.
                           19871027
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OS CASREACT 110:154889; MARPAT 110:154889

A3

19881129

US 1988-277614

The title peptides [I, II; Z = R1-Ym-Ap; R1 = C1-6 alkyl, C1-4 alkoxy, AB (un) substituted amino, morpholino, piperidyl, piperazino, (substituted) piperidino, thiomorpholino, pyridyl, etc; Y = CO, P(O)OMe, SO2; A = NMe, NH, O; m, p = 0, 1; M = Ph, PhCH2, naphthyl, thienyl, MeOC6H4, ClC6H4, HOC6H4, C6-7 cycloalkyl; X = Me, H; R2 = C1-5 alkyl, substituted C1-2 alkyl, PhCH2, guanidino-C1-3 alkyl, 4-aminobutyl, imidazol-4-ylmethyl, etc.; X = cyclohexyl, Me2CH, Ph; W = CHOH, CO, CHN3, CHNH2, CMeOH, etc.; Z1 = CH2OH, R-X1-T; R = CO; X1 = O, NH, NMe, CH2, bond; T = C1-5 alkyl, C1-4 hydroxyalkyl, C1-4 alkylcarbamoyl, H, trifluoroethyl, Ph, PhCH2, morpholino, etc.; L = CH, N; R5 = imidazol-4ylmethyl, C2-5 alkyl; R6 = C1-4 alkoxy, C1-4 alkylamino; provided that when m = 0, P = 0; when A = 0, Y = C0; when T = C1-4 alkylcaRbamoyl, X1 = NH, NMe, CH2; when T = C2-5 alkylamino, C1-2 alkoxyamino, morpholino or 4-C1-2 alkylpiperazino, X1 = CH2, bond], useful as antihypertensives (no data), were prepared Treatment of (S)-3-(tert-butoxycarbonylamino)-4-cyclohexyl-(R)-2-hydroxybutyric acid with Me2CHCH2O2CCl in THF containing Et3N and amidation of the resulting mixed anhydride with MeNH2 gave 42% N-methyl-3-(tert-butoxycarbonylamino)-4- cyclohexyl-(R)-2-hydroxybutyramide (BOC-nor-C-Sta-NHMe). Deprotection of the latter with 4N HCl in dioxane, followed by peptide coupling with BOC-Phe-His(imBOC)-OH (BOC = CO2CMe3) in CH2Cl2 in the presence of Et3N, hydroxybenzotriazole, and DCC, gave BOC-Phe-His(imBOC)-nor-C-Sta-NHMe, which was treated with AcOH-H2O(80:20) to give BOC-Phe-His-nor-C-Sta-NHMe.

IT 119642-75-0P 119642-76-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for renin-inhibiting antihypertensive)

RN 119642-75-0 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-oxo-2-[[1-

[(phenylmethoxy)carbonyl]pentyl]a

mino]-1-(phenylmethyl)ethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

RN 119642-76-1 CAPLUS

CN 4-Morpholinecarboxylic acid, $2-[(1-carboxypentyl)amino]-2-oxo-1-(phenylmethyl)ethyl ester, <math>[S-(R^*,R^*)]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

IT 119624-90-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of, as renin-inhibiting antihypertensive)

RN 119624-90-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[1-[[[1-(cyclohexylmethyl)-2-hydroxy-3-

(1-

 $\label{lem:methylethoxy} $$ = 3-\infty propyl]$ amino]$ - 2-\infty - 1- (phenylmethyl)$ ester, $[1S-[1R*[R*(R*)],2S*]]-(9CI)$ (CA INDEX NAME)$

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L4 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1989:135731 CAPLUS Full-text

DN 110:135731

TI Preparation and testing of peptidylaminodiols as renin inhibitors

IN Fung, Anthony K. L.; Kempf, Dale John; Luly, Jay Richard; Rosenberg, Saul Howard; Plattner, Jacob John

PA Abbott Laboratories, USA

SO PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PAT				APPLICATION NO.	DATE
ΡI	WO				WO 1987-US3376	19871222
		W: AU, DK				
					LU, NL, SE	
	$_{ m IL}$	97441	A1	19920906	IL 1987-97441	19870112
	US	5032577	Α	19910716	US 1987-132356	19871218
	ΑU	8811580	A1	19880727	AU 1988-11580	19871222
	AU	609774	B2	19910509		
	EΡ	295294	A1	19881221	EP 1988-900918	19871222
					LI, LU, NL, SE	
	JP	01502514	Т2	19890831	JP 1988-501082	19871222
	IL	84945	A1	19920216	IL 1987-84945 US 1988-217106 DK 1988-4834	19871225
	US	4845079	A	19890704	US 1988-217106	19880711
	DK	8804834	A	19880830	DK 1988-4834	19880830
	CA	1307289	A2	19920908	CA 1991-615975	19910108
		9170281			AU 1991-70281	19910205
		638093				
	US	5091575	A	19920225	US 1991-713644	19910610
	US	5214129 1986-943567	Α	19930525	US 1991-793773	19911118
PRAI	US	1986-943567		19861231		
	US	1987-132356		19871218		
		1985-693951				
		1986-818714				
	US	1986-818715		19860116		
	US	1986-818734		19860116		
		1986-895009				
		1987-81234				
		1987-527514				
	WO	1987-US3376		19871222		
	US	1988-217106 1989-327467		19880711		
	US	1989-327467		19890322		
	US	1991-713644		19910610		
os	MAI	RPAT 110:135	731			

AB ACHR1-W-U-CHR3CONHCHR4CR5R8CR6R7R9 [I; A = (un) substituted amino, acylamino, etc.; W = CO, CHOH; U = CH2, NR2; R1 = alkyl, cycloalkylmethyl, (substituted) PhCH2, anilino, thiophenoxy, etc.; R2, R7 = H, alkyl; R3 = alkyl, alkenyl, alkoxyalkoxyalkyl, PhCH2, heterocyclylmethyl; R4 = alkyl, cycloalkylmethyl, PhCH2; R5 = H, CH2:CH, HCO, HOCH2; R6 = H, alkyl, CH2:CH, arylalkyl; R8, R9 = OH, NH2], useful as renin inhibitors, were prepared 2S-tert-Butyloxycarbonylamino-1-cyclohexylbut-3-ene (preparation given) was deprotected with HC1/MeOH and coupled with BOC-Phe-Ala-OH (BOC = CO2CMe3), using iso-Bu chloroformate and N-methylmorpholine in THF/DMF at -13°. the product was treated with OsO4/N-methylmorpholine N-oxide in THF to give 3S-N-(tert-

butoxycarbonylphenylalanylalanylamino)-4- cyclohexyl-1,2(R,S)- dihydroxybutane. I inhibited renin with IC50's of 0.3-4000 nM.

IT 114457-15-7P 114457-16-8P 119618-57-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as renin inhibitor)

RN 114457-15-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 114457-16-8 CAPLUS

CN L-Histidinamide, N-[1-oxo-3-phenyl-2-[(1-piperazinylcarbonyl)oxy]propyl]-L-phenylalanyl-N-[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]-,[1(S),2[1S-(1R*,2S*,3R*)]]- (9CI) (CA INDEX NAME)

RN 119618-57-4 CAPLUS

CN L-Histidinamide, N-[1-oxo-3-phenyl-2-[[[4-[(phenylmethoxy)carbonyl]-1-piperazinyl]carbonyl]oxy]propyl]-L-phenylalanyl-N-[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]-, [1(S),2[1S-(1R*,2S*,3R*)]]- (9CI) (CA INDEX NAME)

PAGE 1-B

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L4 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1989:24311 CAPLUS Full-text

DN 110:24311

TI Preparation and testing of peptidylaminodiols as renin inhibitors

IN Luly, Jay Richard; Kempf, Dale John; Plattner, Jacob John

PA Abbott Laboratories, USA

SO Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 5

FAN.	CNT	5						
	PAT	ENT NO.	KIND	DATE		API	PLICATION N	O. DATE
ΡI	EP	- 229667	A2	19870722		EP	1987-10042	4 19870115
	ΕP	229667	A3	19910313				
	EΡ	229667	B1	19940713				
		R: AT, BE	, CH, DE	, ES, FR,	GB,		IT, LI, LU,	
	ΙL	81234	A 1	19920906			1987-81234	
	IL	97441	A1	19920906				19870112
	DK	8700209	Α	19870717			1987-209	
	AU	8767599	A1	19870723		ΑU	1987-67599	19870115
	AU	603080	B2	19901108				
	ES	2059313	Т3	19941116			1987-10042	
	JP	62234052	A2	19871014		JP	1987-6280	19870116
	JP	2525732	B2	19960821				
	US	4845079	Α	19890704			1988-21710	
	CA	1307289	A2	19920908			1991-61597	
	AU	9170281	A1	19910418		AU	1991-70281	19910205
	AU	638093	B2	19930617				
	US	5091575	A	19920225			1991-71364	
	US	5214129	Α	19930525			1991-79377	
	JP	06239811	A2	19940830		JP	1993-12948	0 19930531
	JP	08000798	B4	19960110				
PRAI	US	1986-818734		19860116				
		1986-895009		19860807				
	US	1986-943567		19861231				
	US	1985-693951		19850123				
	US	1986-818714		19860116				
	បន	1986-818715		19860116				
		1987-81234		19870112				
		1987-527514		19870116				
		1988-217106		19880711				
	US	1989-327467		19890322				
		1991-713644		19910610				
N D	'nΤ	1 CHERTICIES 2CO	THCHD/CD	5 D O C D 6 D 7 D O	7 / T	• 7\ -	H OH ally	ul alkovu

AB AR1CHWUCHR3CONHCHR4CR5R8CR6R7R9 (I; A = H, OH, alkyl, alkoxy, thioalkoxy, amino, acylheterocyclyl, etc.; W = CO, CHOH; U = CH2, NR2; R2 = alkyl, cycloalkylmethyl, PhCH2, PhO, PhS, 2-naphthylmethyl, etc.; R2 = H, alkyl; R3 = alkyl, alkenyl, PhCH2, etc.; R4 = alkyl, cycloalkylmethyl, PhCH2; R5 = CH2:CH, CHO, CH2OH, H; R6 = H, alkyl, CH2:CH, arylalkyl; R7 = H, alkyl; R8, R9 = OH, NH2) were prepared as renin inhibitors useful for treatment of hypertension. BOC-Phe-His-OH was coupled with 2(S)-amino-1-cyclohexyl- 3(R),4(S)-dihydroxy-6-methylheptane using dicyclohexylcarbodiimde/1- hydroxybenzotriazole to give 40-60% of the corresponding amide, which inhibited human renin with an IC50 of 1.5 nM.

IT 114457-15-7P 114457-16-8P 114457-55-5P

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)
 (preparation of, as renin inhibitor)
RN 114457-15-7 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy5 methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1 (phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 114457-16-8 CAPLUS
CN L-Histidinamide, N-[1-oxo-3-phenyl-2-[(1-piperazinylcarbonyl)oxy]propyl]-Lphenylalanyl-N-[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]-,
[1(S),2[1S-(1R*,2S*,3R*)]]- (9CI) (CA INDEX NAME)

RN 114457-55-5 CAPLUS
CN L-Histidinamide, N-[1-oxo-3-phenyl-2-[[[4-[(phenylmethoxy)carbonyl]-1-piperazinyl]carbonyl]oxy]propyl]-L-phenylalanyl-N-[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:24298 CAPLUS Full-text

DN 110:24298

TI Renin inhibitors. Dipeptide analogs of angiotensinogen utilizing a structurally modified phenylalanine residue to impart proteolytic stability

AU Plattner, Jacob J.; Marcotte, Patrick A.; Kleinert, Hollis D.; Stein, Herman H.; Greer, Jonathan; Bolis, Giorgio; Fung, Anthony K. L.; Bopp, Barbara A.; Luly, Jay R.; et al.

CS Pharm. Discovery Div., Abbott Lab., Abbott Park, IL, 60064, USA

SO Journal of Medicinal Chemistry (1988), 31(12), 2277-88 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

OS CASREACT 110:24298

GΙ

AB Title analogs, e.g. I (R = Me; NR2 = 4-hydroxypiperidino, 1-piperazinyl, morpholino), were prepared and evaluated for their susceptibility to cleavage by chymotrypsin. The compds. were designed by consideration of the structural requirements in the active-site region of renin and chymotrypsin. By systematic alteration of the P3 phenylalanine residue, compds. with varying degrees of renin-inhibitory potency and chymotrypsin susceptibility were obtained. Selected analogs from this group were examined in vivo for both their hypotensive effects and metabolic patterns.

IT 114457-15-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, renin-inhibiting activity, and chymotrypsin susceptibility of)

RN 114457-15-7 CAPLUS

CN 4-Morpholinecarboxylic acid, 2-[[2-[[1-(cyclohexylmethyl)-2,3-dihydroxy-5-methylhexyl]amino]-1-(1H-imidazol-4-ylmethyl)-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl ester, [1S-[1R*[R*(R*)],2S*,3R*]]- (9CI) (CA INDEX NAME)

L4 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1982:491907 CAPLUS Full-text

DN 97:91907

TI Derivatives of N-(alkoxy-, alkoxycarbonyl- or alkylthiocarbonylalkyl)-N-acyloxyacetyl- or -propionylaniline used as phytofungicides

PA Ciba-Geigy Corp., Switz.

SO Fr. Demande, 41 pp. CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

ran.cni i						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PΙ	FR 2455574	A1	19801128	FR 1979-11126	19790503	
	FR 2455574	B1	19831021			
PF	AI FR 1979-11126		19790503			
OS	CASREACT 97:9190	7				
GT						

AB Anilines I [R = H, alkyl, halo; R1 = H, Me; R2 = alkyl, alkoxy, halo; R3 = H, alkyl, alkoxy halo; Z = CH2, CHMe; R4 = CO2Me C(O)SMe, CO2Et, C(O)SEt, CH2OMe; R5 = H, Me; R6 = (un)substituted alkyl, alkenyl, cycloalkyl, haloalkenyl, halocycloalkyl, Ph, halo-, nitro-, alkyl-, or alkoxyphenyl, (un)substituted benzyl, heteroaryl], useful as fungicides (no data), were prepared by different methods. Thus, 2,6-Me2C6H3N(CHMeCO2Me)COCH2OH was treated with 2-furoyl chloride and pyridine at room temperature to give I (R2 = R3 = Me, Z = CHMe, R4 = CO2Me, R6 = 2-furyl, R = R1 = R5 = H).

IT 77279-91-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

Ι

RN 77279-91-5 CAPLUS

CN L-Alanine, N-(2,6-dimethylphenyl)-N-[[(1H-imidazol-1-ylcarbonyl)oxy]acetyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 47 OF 47 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1981:174698 CAPLUS Full-text

DN 94:174698

TI Fungicidal N-(alkoxy-, alkoxycarbonyl- or alkylthiocarbonylalkyl)-N-carbonyloxyacetyl- or propionyl-aniline derivatives

IN Hubele, Adolf; Eckhardt, Wolfgang; Kunz, Walter

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 43 pp. CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND DATE		APPLICATION NO.	DATE	
	DE 2917923	A1	19801113	DE 1979-2917923	19790503	
PRAI	DE 1979-2917923		19790503			
GI						

AB I [R = C1-3 alkyl, C1-4 alkoxy, or halogen; R1 = H, C1-3-alkyl, C1-4 alkoxy, or halogen; R2 = H, C1-3 alkyl, halogen; R3 and R4 = H or Me; Z = CH2 or MeCH; R5 = CO2Me, COSMe, CO2Et, COSEt, or CH2OMe; R6 = (e.g.) alkyl or cycloalkyl] were prepared as plant fungicides. Thus, 7.2 g 2-furancarbonyl chloride and 4.3 g pyridine were added dropwise simultaneously at ≤20° to 13.5 g 2,6- Me2C6H3N(CHMeCO2Me)COCH2OH in 100 mL MeCN, and the mixture was stirred 12 h to give II.

IT 77279-91-5P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as plant fungicide)

RN 77279-91-5 CAPLUS

CN L-Alanine, N-(2,6-dimethylphenyl)-N-[[(1H-imidazol-1-ylcarbonyl)oxy]acetyl]-, methyl ester (9CI) (CA INDEX NAME)